

OBSERVATIONS

(FROM EXPERIENCE)

ON THE AIR OBTAINED,

IN VARIOUS DISEASES,

(PARTICULARLY THOSE INCIDENTAL TO TROPICAL CLIMATES,)

BY THE

EXTERNAL APPLICATION

OF THE

NITRO-MURIATIC ACID,

IN A BATH.

With Several Cases,

WHEREIN IT HAS BEEN USED BY THE AUTHOR WITH GREAT
UTILITY.

TO WHICH IS ADDED,

THE PRESENT MOST APPROVED MODE OF MIXING THE
ACIDS, AND PREPARING THE BATH.

BY

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How prone to doubt, how cautious are the wise.

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INTRODUCTION.

THE following Treatise upon the efficacy of the nitro-muriatic acid, now offered to the profession and the public, was written and printed nearly three years ago. This circumstance will account for many passages which otherwise would appear inexplicable, if not unintelligible, as also the names of persons now *no more*, and others whose situations in life are so changed, that even within the short space of three years, they could scarcely be recognized.

It will doubtless appear to most of my readers rather extraordinary that I should have taken the trouble of writing and printing this work, and then allow it to remain dormant for such a time: I think I can give very equitable reasons for this seeming inconsistency; namely, when my *leave of absence* from India was granted by the Honourable the Court of Directors, it was for the express purpose of my ascertaining, with some degree of precision, the diversity of diseases, and *circumstances* of disease, to which the Europeans are subject in India, and on their return to their native

country, wherein the *external* application of the “nitro-muriatic acid” would be found most materially to assist in the restoration of their health.

As my opportunities for observations and trials were very considerable, I lost as little time as the nature of the information, and proofs necessary, would admit; and when I had what I considered a sufficient number of cases, I wrote, and got printed, and meant to immediately publish, the result of my experience; but about the period I allude to, (three years ago) in a conversation with the late Dr. Scott, (my much-lamented and particular friend, the *discoverer* of the remedy now in question,) he told me, that “if his health permitted, “he would certainly publish some remarks upon “the effects of the nitro-muriatic acid bath, and “several cases wherein he had used it.” After such communication, let me ask, would it not have been the very acmé of presumption in me, to forerun, by any publication on the subject, such a man? Independent of which, I have no hesitation in saying, that I *willingly* abandoned *the field*, from a sense of my own incompetency to combat the attacks (undeserved attacks) then made upon it, and of his superior knowledge in every respect.

Dr. Scott’s health daily declined, and his constitution (so shaken by a long residence in India) evinced no power to rally. He believed that the sudden vicissitudes of this climate were extremely injurious to his constitution, and he determined to

try the effects of a more *equal temperature* ; but ere he reached his destination, death terminated that life which had ever been devoted to the improvement of his profession, which he practised for very many years in India, and latterly in London, in the most benevolent, generous, open, fair, and liberal manner ; ever despising and speaking with the utmost contempt of those who had the slightest tinge of mystery or quackery, (and many, he said, he met with here,) or who would build their “ fair fame” from the materials produced by their defamation of others. Thus stands the matter at present, and the public and the profession are now left to accept (if they will) a kind of substitute for Doctor Scott’s intended work.

I must regret that circumstances prevented the publishing even some abstract of the diseases in which this remedy would be found most beneficial, and the mode of its application ; more particularly for the guidance of Europeans in tropical climates ; as I find by letters from India, that the use of the “ nitro-muriatic acid,” *as a bath*, and the complaints and symptoms wherein it is most applicable, are actually more imperfectly known there, “ where the doctrine was first preached,” than in this country, where it meets with such opposition.

When I reflect upon the dreadful *hæmoc* produced in India by the *cholera morbus*, I sincerely lament that the assistance of this remedy has not

been sooner had recourse to, or rather that its power has been totally unknown. It will be found a most useful *auxiliary* in all the diseases of India, more especially in all bilious affections, dysentery, chronic hepatitis, jungle fever, and cholera morbus. The dangerous nature of the latter disease, (cholera,) the pitch it has now arrived at, and the rapidity with which it runs its course, requires the most immediate and prompt measures, and induces me to offer here a few remarks on the subject.

Practitioners ought, in my mind, at the commencement of the attack, to avail themselves of the united powers of every remedy which can be used with safety, and is known to be efficacious. The disease now termed *CHOLERA MORBUS in India*, according to the present acceptation, seems to be very similar to a disease which raged there, (particularly upon the Coromandel coast,) about forty years ago, and swept off hundreds; and which, from its symptoms, might be said to be a combination of the *cholera morbus* and *tetanus*.

From what I could glean by conversing with gentlemen lately returned from India, it would appear that copious bleeding was very much resorted to in the present cholera, as a primary step to subdue the spasms. Now, however anxious I am to contribute my trifling mite in crushing this bane of India, yet am I very cautious and humble in offering my opinion upon a branch of the treatment, of the necessity of which none

ought to be better judges than those who are in daily and hourly attendance. It makes a vast difference, in forming our opinions of the necessary treatment, to *view* the disease at the *bed-side*, or *in perspective*. Nevertheless, in reference to bleeding in cholera, from what I saw of the disease in India, whenever there were spasmodic contractions, with coldness of the extremities, vomiting, and a fluttering pulse, bleeding did not appear to be indicated. Yet a very intelligent medical friend of mine, lately returned from India, tells me, that with the symptoms named above, he has put his patients into a hot bath, and whilst there, took away a large quantity of blood. That the bleeding will give a temporary relief in the spasms, no person will doubt; but then the cause of the spasms still existing, (and no possibility of administering any remedy during the *syncope* produced by the bleeding,) they will return with *double* power upon the system, whose *energy* is so much diminished.

Were I to presume to lay down a general rule of practice for India in cholera, I should say that our sheet-anchor was opium and mercury; added to which, I should, in such cases, immediately put the patient into the nitro-muriatic bath, prepared in the manner directed in this work.

In the disease to which I now allude, (the aggravated cholera,) the bath must be made very considerably stronger than it is generally used. It is of vital importance that the heat of the body

be speedily recalled, and the vomiting stopped; by the restoration of heat, the vomiting will be greatly allayed, and the other remedies may then be productive of benefit. The power of this bath in restoring heat, equalizing the circulation, and producing a general tranquillity of the system, are sufficient reasons for strongly urging its use in this disease, independent of its other effects, which are spoken of in another part of this publication. When the patient is kept in the bath for fifteen, twenty, or thirty minutes, according to circumstances, he should be quickly rubbed dry, and put into a *warm bed*, and mercurial frictions, with opium, immediately employed, and very liberally used. The mercury and opium must also be given internally, and this may be done whilst the patient is in the bath, or the bath preparing, for there is not a moment to be lost; too soon, alas! the sad hour arrives, when all remedies are vain.

The preparation of mercury upon which I mostly depended, and of course would most strenuously recommend, is the oxymuriatis hydrargyri (corrosive of sublimate;) it will be found much more easily administered, more *quick* and certain in affecting the system, and much less deceptive than any of the other preparations. I have given it in India, with the most decided benefit, from a quarter grain to a *grain* in the dose, and repeated it every second, third, or fourth hour, according to the urgency of the case; always combining with it

two, three, or even four grains of opium at the first, adding to the pills a few drops of any of the essential oils. The *external application* of opium and mercury were used at the same time. Should *a fluid* be most easily taken and *retained* by the *invalid*, then the *liquor oxymuriatis hydrargyri* may be given, from half an ounce (which contains a quarter grain of the mercury) to two ounces, combined with the *necessary* quantity of tincture of opium, and two or three drops of the essential oil of peppermint, or carraway seed, ought to be rubbed up with the dose. Dropping a little essential oil of carraway, peppermint, or *lavender* on sugar, and giving it to the patient to suck, will be found of service. The giving of hot brandy, to restore heat, and quiet the stomach, is very often, I fear, productive of bad consequences.

At many of our *out* stations in India, and frequently even at the presidencies, a medical man is not to be had at a moment's notice, or in the *hour of need*; and as in this dreadful disease some hundreds die within the first hour, I should strongly recommend every European to make himself acquainted with the first and best steps to be taken in the event of an attack of the cholera. He would thereby, at least, keep the disease *in check*, until medical assistance could be obtained. The *orderly men* should have *written instructions* descriptive of the disease, and the remedies to be used. By each individual combating immediately with this malady,

and having the remedies prepared at the moment of the attack, many valuable lives, native as well as European, would be saved. In *half an hour*, when there is no assistance at hand, or any *check* given to the disease, the person's *fate* is decided; the *vis vitæ* is so lowered, that the medical man sees, on his arrival, all remedies are fruitless.

I do not think it answers any good purpose to publish a volume of cases, and have therefore given only a few of the many in which I used the nitro-muriatic bath.* Two or three skilful medical friends of mine in Ireland, have favoured me with some valuable information (which I am, of necessity, obliged to omit) upon the utility of this bath in diseases wherein I never had an opportunity of using it; more particularly in *typhus fever* its assistance was deemed invaluable. Calomel and opium were given largely at the same time; ten or twelve grains of calomel, and three grains, sometimes four, of opium at a dose; the mercury and bath were repeated according to the dangerous appearance of the symptoms. It was also used as "*a general bath, and strong,*" (to use the words of my friend,) and found to be a complete

* While this sheet was passing through the press, a volume appeared, from the pen of Mr. Wallace, an ingenious surgeon in Dublin, on the nitro-muriatic acid bath, and on the application of chlorine in a gaseous form. This volume is, upon the whole, confirmatory of what I have stated in the present work.

remedy in *marasmus*, *infantile remittents*, and *tabes mesenterica*.

I shall not attempt any apology or excuse for the many faults which may be found in this work, but simply say that I trust it will prove a good *index* to a very useful practice.

PHINEAS COYNE.

41, Welbeck Street, Cavendish Square,
July 22, 1822.

OBSERVATIONS,

&c. &c.

THE following short Treatise not being intended solely for the perusal of gentlemen of the medical profession, I shall endeavour to render it as familiar as possible to the perceptions of general readers, and avoid all technical phraseology, as well as discussions of an abstruse and complex nature. To my medical brethren I beg to premise, that they are not to expect from me any new doctrines respecting diseases, nor theories with which they are as yet unacquainted.

I am fully persuaded, however, that the pages which I am now about to present to the public, on a subject which is certainly both interesting and important, will be received with that spirit of candour, which estimates a work rather by the utility it offers, than by any peculiar attainments of the author. Those who know me, will not, I am convinced, attribute to me the ambition of taking my station among the ephemeral scribblers of the day; nor suppose me anxious of enrolling my name in the already numerous horde of pamphleteers.

The motives which have induced me to submit before

an impartial tribunal the following Observations, together with a detail of the diseases to which they apply, are such as I trust will not be imputed to the vanity of theorising, even by those medical gentlemen who may differ with me in opinion on the subject which I am about to discuss. Nor am I without some hopes, that the simple statement of facts which I shall offer, will remove from the minds of some eminent gentlemen of my profession, that untoward prejudice which they have hitherto entertained against a remedy that is by no means in opposition to the principles of medical science, though not treated by its opponents on the grounds of fair and rational experiment. But this last assertion may be questioned by some people; and it may be objected to the Treatise, that the necessity of it is precluded by the inexpediency of making any further experiments of the nitro-muriatic acid bath, inasmuch as those already made by medical gentlemen have not proved it to be an efficacious remedy.

To this objection I reply, in positive terms, that it *has not* received a fair trial from those gentlemen, some of whom, I regret to find, are among the most celebrated of their profession. It is an indisputable fact, that the mode they proceeded upon, could not have produced the anticipated favourable effects; and such being the case, they consigned it, *una voce*, to the shades of oblivion, except so far as it is remembered in the acrimonious pages of some few medical writers, who have inveighed against it with all the egotism of dogmatical superiority.

Had the gentlemen of the medical profession in London put the acid bath to a fair test, or had it experienced violent opposition, the necessity of this publication would certainly

have been precluded: for, in the first instance, the experiment would have convinced them that the discovery of the nitro-muriatic bath was one which ought to be most highly appreciated by mankind in general; and in the latter case, the violence of opposition would have so excited the public attention to the subject, as to ensure the ultimate success of the remedy.

It may be here allowed me to explain the mode they adopted in these imperfect trials; and which I discovered from conversing with some of the persons who used the bath, and likewise from seeing several of the prescriptions wherein it was ordered. I found, to my surprise, that they had ordered only *one drachm* of the compound acid to be added to a gallon (sometimes to *six quints*) of water; and the patients to sponge their legs with this for ten or fifteen minutes each night. The above plan was persisted in for perhaps a fortnight, when, *mirabile dictu*, it produced no effect, either good or bad, and was of course abandoned. It might really be supposed, from this sort of trial, that the bath was expected to act like the pool in Scripture, by which lepers were instantly made clean; but there are no miracles wrought in these unhallowed times. Had the gentlemen ordered the quantity of acid which they prescribed for a bath, to be mixed in *three pints* of water, and drank daily in the course of the twenty-four hours, they would have consulted the restoration of their patients, with a much greater prospect of success.*

* A drachm of the compound acid is not, I believe, more than an eighth of the quantity *generally* ordered, by those who know its use and effect, nor a *twelfth* of the portions which I have, in some cases, used for weeks, where the patients sat in a bath containing ten or twelve gallons of water.

Their particular mode of prescription can only be ascribed to a disingenuous neglect of fair experiment; or to a distrust of the efficacy of the bath, under any modifications whatsoever. I would, notwithstanding, willingly impute the trial they have given it to the latter cause only; and I shall be at all times ready to bear testimony to the candour and liberality, as well as the profound attainments of many gentlemen of the profession, with whom I have the honour of being personally acquainted. And no country, I believe, can boast of medical gentlemen more truly liberal and respectable than are to be met with in Great Britain. The result of these unfair trials produced, as I have already observed, the immediate condemnation of the acid bath, as an unsuccessful remedy; and the more liberal, as well as the less sceptical part of the profession, relying on the judgment and *presumed* experience of their brethren who made the experiments, gave credit to their premature verdict, and took no pains to satisfy themselves as to the merits of the case. The spirits of the invalids were sunk, in consequence, to the lowest stage of despondency; and these happening to be, for the most part, among the higher and middle circles, the remedy could receive no effectual support from any other quarter. When it was known in London that these medical gentlemen were giving the acid bath a trial, (and, as every body supposed, a fair one,) all those who were affected either with real or imaginary complaints, awaited the issue with the most anxious impatience, looking to the grave experimentalists as the very oracles of medical science. Indeed, they may be aptly compared to so many culprits waiting the decision of their judges, which was either to consign them to a premature grave, or restore them once

more to their friends and acquaintances, being rescued, in an auspicious hour, from all the horrors of impending death. *Mercury*, that *ne plus ultra* of physic, they often tried to no purpose; nor was this potent mineral the only remedy to which they had recourse; the whole stock comprised in the *materia medica* was consulted, in the anxious hope of some benefit. A remedy was, however, impracticable, and each new medicine that they resorted to, only proved its inefficacy to remove the complaints with which they had been so long afflicted.

Such was the state of the invalids in this country, when, hailing the discovery of the acid bath, their too sanguine anticipations induced them to consider it an instantaneous remedy for all their diseases, the grand PANACEA, which was so long a desideratum in the medical world. A single dip, they imagined, would be sufficient to produce immediate restoration; and after returning from those last haunts of nervous morbidity, the watering places, they repaired, with eager haste, to their medical friends, to receive their sanction to try Dr. Scott's wonder-working bath. But when they were told that this bath produced "no salutary effects whatever, more than any common warm bath," their hopes, as I have stated, were depressed to the last degree, and the airy visions of renewed health, which fancy had created, vanished at once, and gave way to all their former broodings of melancholy and despair. So great a sensation did the acid bath excite on its first introduction, that the Queen, the Prince Regent, and almost all the Royal Family, are said to have inquired of their medical attendants what this remedy was, which had acquired such sudden reputation? whether its efficacy was equal to its fame? and if it might be resorted to

with any confident hope of success? As no consultation was held, each delivered his answers to these inquiries according to the suggestions of his mind at the moment; and while some few abstained from condemning the bath precipitately, by far the greater number were prompt in decrying it. I have not heard precisely the various opinions, but if report may be relied upon, one said, that it might be compared to the *metallic tractors*, that perhaps it would live a day, and then be consigned to merited oblivion; another asserted, that he heard it was like to the *ean medicinale*, in one respect, namely, *kill or cure*, but confessed that he himself had never given it a trial, nor, indeed, *ever intended to do so*; and a third gentleman merely shook his head by way of reply to the interrogatories of the royal party. Now it is a certain fact, however extraordinary it may appear, that the *shake of the head* produced an effect more decidedly unfavourable to the adoption of the remedy, than the several opinions that had been orally delivered; for there was something so awfully significant in the motion, which it is understood was repeated three times, and something so very portentous in the look of the gentleman, that royalty stood aghast for the moment, as if threatened with the visitation of some unutterable calamity. Thus far had the nitro-muriatic acid bath advanced and retrograded in the public estimation, when our medical writers took it up, and one of well-known celebrity considered it worthy to occupy several pages of his publication. The object of his examination was *merely* to shew the destructive consequences that must (*in his opinion*) eventually result from the remedy in question.

It would be inexcusable in me, while professing myself the advocate of this remedy, and about to publish the result

of my experience, were I to omit noticing any dissertation against it. And in thus noticing and attempting to refute the objections urged against this remedy, I beg to be understood that I neither mean, or intend any controversy, nor a *pamphleteering warfare*, which seems to be the present *medical order* of the day, and in which the disputants become so personal as to totally lose sight of the subject upon which alone the public are interested.

To enable my readers to judge for themselves, I shall state, in the Doctor's own words, the principal objections he makes to the acid bath. After giving a copy of a paper written by Doctor Scott as a direction how the acid bath might be prepared, together with a few cursory remarks on those cases wherein it might be successfully used, he proceeds thus :

“The nitric acid (double aqua-fortis) was highly extolled by the late Doctor Beddoes, about twenty years ago, as a substitute for mercury. Many sober practitioners were in consequence induced to give it trial, but instead of its manifesting any specific effects in a *certain disease*, in many incipient cases, by disordering the stomach, it proved very injurious, and many lives were sacrificed in ascertaining its effects; and we should have supposed that the result of Doctor Scott's experiments with nitric draughts and baths, in the East Indies, would have induced him to have abandoned the free use of mineral acids, both as an internal and external remedy.”

I am at a loss to know what the object can be for thus fencing in a parenthesis a second designation for nitric acid, (double aqua-fortis.) Is it meant by this to excite the fears of the vulgar, or to insinuate that it is possible to apply the

acid in its pure state, or that it is not capable of being diluted by water to any degree that may be required? The assertion, that the acid was highly extolled by the late Dr. Beddoes, is very correct; but the manner in which it is made, would refer the discovery of it, twenty years ago, to Dr. Beddoes, and not to Dr. Scott, who alone is entitled to the merit. Though it is a matter of little consequence to mankind in general, whether one person or another happens to make an useful discovery, provided it be made, yet I think it but justice to the memory of that respectable physician, Dr. Beddoes, to say, that he had too much candour of principle to arrogate that merit to himself, which he was conscious was due to another individual. And though he struggled against violent opposition to give the *internal* use of the acid a fair trial, yet he never failed to acknowledge the source whence he had derived his information on the subject, as will appear from the following extract from his circular letter, written twenty years ago.

“Sir,—You probably know that Scott of Bombay was led by considerations that need not be stated here, to try the nitrous acid in the V. D.; that the experiment answered, and that it has been successfully imitated in England,” &c. &c.

Here is an ingenuous and open avowal, ascribing the merit of this discovery to Dr. Scott; and we know not, by a single instance, that the use of the acid as an *external* remedy (or bath) was ever spoken of in England, till the arrival of Dr. Scott from India; and the following passage (taken from a Bombay Newspaper, printed upwards of twenty years ago) will clearly prove that Dr. Scott did not lose any time in publishing his discovery of its effects as a

bath : thereby giving the profession an opportunity (if they would but avail themselves of it) of also trying it *externally*.

“ I did not suppose, some time ago, that I should again trouble the public on the subject of the nitrous acid as a remedy for disease, having given up all thoughts of publishing the numerous cases in which we have used it at this place with success. I had resolved to leave it to its fate, with a conviction, that if I really had discovered a truth of some importance to mankind, I had said enough to secure it from being lost ; and with a wish, that if I had done nothing new or useful, it might, like many other vain *speculations*, be speedily forgotten. I have lately, however, made an observation with respect to the nitrous acid, that I think is of sufficient consequence to be laid before the public, as it seems to remove the chief objections that have been brought against it by practitioners. These objections are, its unpleasant taste, and the bulky form in which it is necessary to give it. I have now made it probable, that, like mercury, the nitrous acid is absorbed by the skin, and afterwards produces in the system the same effects that arise from its internal use ; in this way I have tried it yet in only two cases, but in those with a degree of success that I could hardly have expected.”*

The assertion, made with all the tone of undisputed verity, “ that many lives were sacrificed in this country in ascertaining the effects of the remedy recommended by Dr. Beddoes,” is so palpably groundless, that I am persuaded no medical gentleman who is not *more than usually* credulous, will lend his belief to it for a single moment. Were it necessary, however, to make any reply to this asser-

* Bombay Courier, July, 1797.

tion, which, by the bye, is not *clothed* in very HAPPY or genteel language, I could adduce numerous authenticated proofs to shew, that the internal use of the remedy, so far from being attended with such fatal consequences, produced, on the contrary, *very beneficial* results; and I shall, for the present, content myself with offering the following lines, which are found in a letter from Dr. Trotter, Physician to the Fleet, to Dr. Beddoes, under whom the internal use of the acid, in a *certain disease*, was obtaining a very liberal and candid trial.

“ Accept my warmest thanks, in the name of the public
 “ service I have the honour to represent in this undertaking,
 “ for extending and appreciating the discovery that must
 “ immortalize Scott. You will abridge the labour of the
 “ Naval Surgeon, and you will save the seamen of Great
 “ Britain from premature old age, and untimely graves.”

So much for the “ lives that were sacrificed in making experiments;” and we shall now come to examine the other statements against the acid, and try if they are better supported.

“ Even if the nitric or nitro-muriatic acid really pos-
 “ sessed the same alterative properties as mercury, every
 “ considerate practitioner, acquainted with their chemical
 “ powers, must be convinced that they are more likely to
 “ derange the stomach, and produce morbid structure, than
 “ mercury.”

This is an objection that I could not suppose any medical man would set forth against it; and the only remark I shall make upon it is, that I believe there are few, if any, medical men (who have ever given the acid a trial) can possibly suppose that MORBID STRUCTURE is produced by it, when daily experience shews, that it has precisely the

contrary effect, tending rather to eradicate than create such *morbid structure*.

“Where (says this author) is the rational practitioner that would not prefer taking a *grain* of calomel twice a day, to an ounce of double aqua-fortis, or to the mixture of the muriatic acid (strong spirit of salt) and aqua-fortis?”

Now there is not the least necessity for me to answer the above question, because *it answers itself* by another interrogatory. It is, to be sure, one of those illogical *Hibernianisms*, which is sometimes used in place of argument, but one which I will readily admit in this instance, viz. “And where is the practitioner so mad as to persist in administering such a medicine for a month together, or, indeed, a week?”

Nil agit rem hinc quod hinc resolvit

I should be sorry to suppose that this sort of *reasoning* was by any means characteristic of the author; if it was, I should not deign to reply to any of his objections. But by way of answer to the interrogatory which he makes the respondent to his former question, I shall simply say, that I believe no practitioner was ever *mad enough* to administer an ounce of this acid at once.*

“The fact is,” continues this author, “medical men have of late years become so numerous in this country, that in order to make themselves known, it is necessary to

* The most I was ever able to give at one dose (even in India, where the heat of the climate makes all acids much more easily and safely taken) was about the *thirtieth part of an ounce*, and to repeat this every hour, or once in two hours, according to circumstances.

“broach some new doctrine, or some new method of treating a prevailing or common disease. Hence we have a variety of theory-mongers, who, we have no hesitation in stating, have destroyed as many lives as the sword, and whose ridiculous theories have lessened the healing art in the opinion of men of scientific attainments.”

I cannot concur with the Doctor in this sweeping censure upon “*theory-mongers*,” as he is pleased to term all those men who of late years have advanced new opinions on the subject of medical science. Can he, I would ask him, conscientiously believe that they have wrought such desolating havoc among mankind as he describes? Surely, his treating with such severity men of equal industry with himself, and perhaps of more profound research, must have proceeded from some other cause than a firm, independent, self-conviction of its truth.

Had he inveighed against the empirics who batten on the credulous part of the community, he would be entitled to our warmest praise; and have proved, perchance, that such impudent pretenders “have destroyed as many lives as the sword;” but when he attacks those labours which are the result of patient investigation and scientific attainment, he evidently does that which is not warranted by the fair principles of dispassionate argument.

That theories have multiplied in this country, I am (with many others) very free to admit; but there can be no evil in this; for, unlike moral theories, those in physic are never sanctioned for any length of time, if they be not well-founded. A man may go for months, for years, nay, all his life, to hear the licentious ravings of some fanatical declaimer, but he will seldom continue the use of a new medicine for

many days, if he does not find it produce a salutary effect.

Besides, though a man may advance a theory, which in the opinions of others may be considered erroneous, (and in his own without proof,) yet he may, in other respects, be very eminent in his profession; and it must, therefore, be exceedingly unjust to confound with such a theory, all the other results of twenty, thirty, or forty years' experience. This mode of argument from particulars to generals is by no means a fair one; and as a proof of this, let me ask, would it not be acting most unjustly by the author of a modern scientific work, which affords us much, very much, useful information, to condemn it as altogether absurd, because he (the author) assumes the irreconcilable hypothesis of referring all disorders to "nervous temperament." Thus he asserts that "diseases of the liver, bowels, spleen, &c. &c. "are mere symptoms; and we are to conclude (he says) that "the pathology of these diseases is to be sought in the deranged sensations, and inverted sympathies of the great "sympathetic nerve."

The same author, also, (after indulging in a florid panegyric on the virtues of General Washington, and some severe sarcasms on the Ex-Emperor of France, and drawing various hypothetical deductions, which, to say the least of them, are both unnecessary and irrelevant,) affirms, that nervous men, or men of NERVOUS TEMPERAMENT, ought to be banished from the councils of all sovereigns. But he does not *condescend* to inform us, what the MINISTERS or the people are to do with their *nervous* sovereigns; not venturing to treat on the animal system of monarchs; while he says, with the utmost *sang froid*, "A nervous statesman

“ could not easily divest his public measures of some portion
 “ of his constitutional dispositions. He would, at times,
 “ view things through a false medium : and by judging from
 “ mistaken premises, would conduct the measures of govern-
 “ ment with imbecility and supineness, and bring it into
 “ contempt. Every plan he devised would partake of the
 “ mood he happened to be in at the moment ; it would be
 “ liable to defeat, and exposed to opposition, in hazard of
 “ being divulged before execution, and open to derision.
 “ The morbid sensibility of a deluded hypochondriac might
 “ alarm a people by imaginary dangers ; and in the season of
 “ disaster, might bring ruin on the affairs, by irresolution
 “ and despondency.”

Now what a *beautiful* PHYSICAL rock this would be for Radicals to take their station behind ; and were this fanciful theory of this eminent physician to be practically acted upon by the government, what ridiculous interruptions, and what a vast mass of extravagant absurdity would it not occasion ? A law must of necessity be passed, prohibiting men of NERVOUS TEMPERAMENT, or such as had any affection of the great SYMPATHETIC NERVE, from holding any situation under the crown, either civil or military ; and hence there would be so many exceptions made to individuals suing for places, and oaths and PHYSICIAN'S CERTIFICATES would be multiplied to such an extent, that the nation, before it could be RESOLUTELY served, must be first harassed to vexation, and then sworn out of its morality.

When a theory is founded on experience, and promises favourable results, it should, in my mind, never be rejected, without trial.

But to return to the Doctor, who is so very inimical to

the acid bath. He goes on thus: " Dr. Latham, the learned
 " president of that learned body, the College of Physicians,
 " lately observed to a physician from the East Indies, that
 " the practitioners of this country were greatly indebted to
 " those of the East for their present knowledge of diseases
 " of the liver; that by directing our attention to this impor-
 " tant organ, we had discovered that a great variety of
 " diseases, which were supposed to be nervous, are bilious."
 He, however, concludes his remarks on Dr. Latham's know-
 ledge in a very uncourteous manner, by telling us, that " with
 " due deference to the opinion of the learned president of
 " the College of Physicians, his observation on hepatic
 " diseases is ridiculous." Now whether Doctor Latham's
 remarks, with respect to our being indebted to the practi-
 tioners of the East for a knowledge of diseases of the liver,
 be correct or not, I most certainly shall not presume to
 determine; yet, as he asserts that the opinion of the learned
 president is ridiculous, he should also have taken the
 trouble of proving it so, and explained to us from whence, in
 his opinion, the practitioners of this country have derived
 their information, or to what source they are indebted for it,
 if not to the East.

For my own part, though I have been in the Honour-
 able East India Company's service, yet I cannot say that I
 am SOLELY indebted to that circumstance for whatever
 knowledge I have in hepatic complaints; and it is but grati-
 tude to acknowledge, that my first information relative to
 diseases of the liver, and the subsequent consequences, was
 derived from my brother,* with whom I occasionally lived,

* He was a physician in practice, previously to the time that I com-
 menced my studies.

during my studies, and since we parted, have kept up correspondence on medical subjects.*

As I have made a digression to acknowledge my obligations to a brother, I feel it would look like ingratitude, (when speaking of the sources whence I derived my best information,) to omit the name of one to whom I am certainly not less indebted, (Dr. Yates, of Brighton,†) and whose kindness and steady friendship I shall always reflect on with the utmost pleasure. Having offered this trifling tribute, let me resume the business I was upon.

“The opinion,” says this author, “that a great variety of supposed nervous diseases are bilious, is so prevalent in this country, that almost every disorder is termed bilious, and the narrow-minded practitioner boldly attacks them with mercury. That this remedy, when seasonably and discreetly administered, often proves very beneficial, in a great variety of diseases, no practitioner can deny; but when employed, as it is by many physicians, with no reserve or discrimination, it is often productive of the most serious consequences. Many cases have lately occurred in our own practice, where incurable diseases were produced by mercury prescribed by practitioners, under the supposition that the liver was diseased, and which, by dissection, was proved to be erroneous.”

* The following passage from one of his letters I shall give, as being, in my opinion, good advice to any young medical man, viz. “Read and observe; modestly apply the wisdom and experience of others to your aid, but, of all things, be not the slave of fashion or theory, however beautiful; let your PRACTICAL motto be—

“Nullius addictus jurare in verba magistri.”

† I was fortunately appointed his assistant, when I first joined the service of the Honourable East India Company.

With respect to a physician prescribing mercury, "without reserve or discrimination," I shall not presume to question the Doctor's veracity or *personal* knowledge on the subject; but I can only say, that I never knew it done, even in India, where it appears to be prescribed without reserve, by any tolerably intelligent medical man; and as to the "*many*" "*cases*" which have lately occurred to him, where incurable "*diseases*" were produced by mercury, under the idea that "*the liver was diseased, and which, by DISSSECTION, proved*" "*not to be so,*" I fancy they are more vagaries of the imagination, than real proofs *against the doctrine of the liver*. Sober and reflecting experience sufficiently proves, (and I suspect the Doctor knows it) that DISSSECTION does not at all times afford us the means of ascertaining the direct cause of death. This mode of reasoning upon the *appearance after death*, has been the medium of condemning (*not intentionally, but from want of consideration*) many clever men. I remember one in particular, in London, whose name, of course, I shall refrain from mentioning, having asserted (*previous to the word liver becoming in high fashion*) that a nobleman whom he was called on, amongst other practitioners, to see, had a disease of his liver. The patient died, and was *examined*; the other medical men pronounced that their colleague was mistaken, for the liver had the NATURAL APPEARANCE; and yet they could not discover the *remote* cause of death. The friends of this nobleman, very naturally, concluded that this opinion was *ipso facto*, and from such learned men proof positive; and even although they received VAGUE ANSWERS to their anxious inquiries respecting the real cause of *his* long suffering, his HEAD-ACHES, his MELANCHOLY, his INDIGESTION, his NERVOUSNESS, and

ultimate death, yet they consoled themselves with the idea, that he died of some UNKNOWN DISEASE, that even dissection could not discover, and consequently must have been, *AB INITIO, incurable*. 'There is not, in my opinion, many more certain facts connected with physic, than that the secretions from the liver may be (and often are) so very much diseased as to materially injure the general health, or totally destroy the patient, and yet were it possible to *examine* the organ itself, there would not be found any apparent *morbid alteration* of its *substance*, or structure. When it is considered, as many of our medical brethren have already told us, and daily experience confirms, that even although the HEALTHY functions of the liver are not SUDDENLY SUSPENDED, and a PART of the bile (perhaps pure, as far as the eye can judge) flows regularly through the proper channel, into the duodenum,* and *another portion*, comparatively small, escapes at any other opening, the individual, however vigorous, would gradually decline, having all the *train of nervous symptoms*, and eventually die, if not relieved. Can we wonder, then, that many diseases, supposed to be nervous, are literally bilious?

Every medical man allows, that without the healthy secretion of this useful fluid, (bile,) the intestines no longer could perform with efficacy their natural functions. The heterogeneous substances contained in the food would no longer unite; chylication would no longer be properly performed;† the person, consequently deprived of nutrition,

* The first portion of the small intestines, and that which is destined to receive the bile from the *ductus communis cholidochus*, or common bile-duct.

† Chylication is a term used to express that process carried on principally in the duodenum, for the purpose of separating the chyle (*a milk-like fluid, from which the blood derives its nourishment*) from the feculent parts of the food.

gradually loses ground, complains of internal heat, both of the head and abdomen, with flatulency, *low spirits*, and the *innumerable retinue* of *nervous* complaints, and if not relieved, must ultimately sink. When we reflect that the immense blood-vessels passing into the liver, for the nourishment of that organ and secretion of bile, communicate with those destined to supply and carry away blood to and from the other *viscera* of the *abdomen*, we can easily account for the pain or uneasiness felt in the stomach, (being the most susceptible,) in consequence of obstruction in the liver.* Thus we can account for the cause of his mistake, when he tells us, that "in every instance of diseased liver which he has met with in this country, the stomach was primarily affected." The reason of its appearing to be (in many instances) the primary affection, is obvious: the stomach being the most sensible to the least mischief, and a part of the liver being in *actual contact* with it, an overgorged state of the liver, or almost any derangement of it, must consequently soon communicate with the stomach, (*independently of the reflux of blood upon it, which I already adverted to, as produced by obstruction in the liver,*) and the common effects of such communication are, head-ache, an almost constant sickness or loathing of food, more particularly when the stomach is full, as it is then in closer contact with the liver.

The man, therefore, who mistakes the cause of the sickness, and attempts to remedy the stomach, without attending to the source of the disease, will, in all such cases, find himself miserably disappointed. I know it is the prac-

* I do not mean to assert, that there cannot be any disease of the stomach, or other *viscera*, without obstruction or mischief of the liver.

tice, in such cases, to try occasionally, for a fortnight or longer, the BLUE PILL, or small doses of calomel; and that without knowing why it is ordered, or without having any disease in view, or even an idea of one, wherein mercury is indicated. This treatment gives an occasional respite to the stomach, although the prescriber dreams not that the relief is indirect, by the aid it affords the liver.

The mercury is then suspended for a time, the same STOMACH DISEASE returns, and is again and again relieved by a similar mode of treatment; at length, the liver (the original seat of the disorder) becomes so much diseased, and perhaps enlarged, as to call the patient's attention to it, who also calls the *doctor's*. The latter seems rather *astonished* that the liver should have *stolen* such a *forced march* upon him, but he reconciles it all to himself and his patient (much as he is at first astonished) upon the *broad basis* of SYMPATHY; for there was not, in his mind, a shadow of doubt, that the *stomach* was the *primary* disease.

Without adverting to the theory of *sympathy*, we know, from experience, that when the functions of the liver are going on healthily, the other organs concerned in digestion perform, generally speaking, their respective functions with precision, and *vice versa*. The liver may (*metaphorically speaking*) be called the *great wheel* in the digestive MACHINERY, and if only *one cog* of that wheel gets out of order, the other parts of the machine must ultimately suffer, and perhaps *do*, almost immediately, although, of course, not to that extent which would enable us to discern it. But, according to the duration of the disease, the disorder of the stomach, the spleen, and other viscera, increase.

Can we wonder, then, that many diseases, absurdly

termed *nervous*, are really produced by some *defect* in the *biliary* secretions ?

But to return to the *anti-acid* publication : “ Doctor Scott tells us,” says the author, “ that the immediate consequence of the nitro-muriatic bath is a feeling of being bilious, such as head-ache, giddiness, &c. &c. A gentleman, a few weeks ago, had recourse to a warm bath, for a rheumatic pain. After being in it a few minutes, he discovered those supposed symptoms of flowing bile, viz. head-ache and giddiness. He requested to be taken out, and on placing him on a sofa, his servant discovered that he was dead ! On dissecting the body, the cause of the giddiness, &c. was discovered to be a rupture of a blood-vessel in the head.”

Can it be possible that the PUBLISHER of this STORY supposes, for a moment, that the recital of such a case would deter any person (with *one particle* of sense remaining) from using the remedy, against which *his* dead man is brought forward from a *warm bath* ?

If this case which he relates could have any influence upon the minds of nervous patients, it would be that of deterring them from the use of the plain warm, or hot bath ; because, had the nitro-muriatic bath been used instead of the *hot* bath, it *might* have produced an equability of the circulation (which it constantly does) and a discharge from the bowels, or a *disgorgement* of the liver into the bowels, by which means the DETERMINATION of blood to the head would have been counteracted.

This objection urged against the use of the acid bath, must certainly fail to produce that scaring effect which is evidently intended by it. The circumstance appears to me

pretty nearly this: the gentleman had an attack of apoplexy, (or a strong predisposition to it) the symptoms of which were mistaken for rheumatism; he was put into a hot bath, which increased the determination of blood to his head to such a degree as ruptured a blood vessel, and thereby caused instant death. The dissection of this gentleman is like many other examinations after death; the proximate cause is discovered, but the remote is not even thought of, consequently, not looked after.

In my humble opinion, there should have been (*after the dissection*) a coroner's inquest upon the body of this gentleman, when the jury must have discovered that his death was caused, *bona fide*, either by his own *foolhardiness* in going into a *hot* bath without proper advice, or by the ignorance of his *medical adviser*; therefore their verdict could not have been WILFUL MURDER against the hot bath, but *felo-de-se*, or MANSLAUGHTER!!

In the next passage of this severe criticism on the acid bath, the author attempts to ridicule Dr. Scott's opinions respecting the colour of the *faeces*, in the following manner: "As to the appearance of the *faeces*, which Doctor Scott
 "fancies to prove that the liver has undergone purgation,
 "they are more or less produced by any aperient medicine,
 "or even diet, that may irritate the intestines. Even warm
 "water, with common salt, injected into the rectum, will
 "produce a discharge similar to that which he terms de-
 "praved bile; and surely no one will suppose that such a
 "remedy could act on the liver. Has Dr. Scott to learn,
 "that there is a *considerable* secretion from the internal
 "surface of the intestinal canal, and that it exhibits different
 "appearances in cases of organic disease, both of the

“stomach and intestines, even when the liver is perfectly healthy? Has the Doctor, in the course of his long practice in the East Indies, never met with a case of diseased intestine, or *schirrous pylorus*?”

I regret that any gentleman of the medical profession should evince, in his writings, such a total want of candour, and of the ordinary courtesies of civilized discussion, as appears in the passage just quoted; but of all his dogmatical assertions, these last are certainly the worst supported, and most inconclusive. As to his idea that “aperient medicine, or an injection of salt and water, will produce a discharge from the bowels similar to depraved bile,” I can easily imagine they might, and no one could suppose these medicines acted DIRECTLY on the liver. Yet could one be charged with putting his *theoretical reasoning* too much upon the *stretch*, were he to conclude that the depraved discharge, brought off by an injection, or any aperient medicine, was literally a diseased secretion, which had passed from the liver, (*perhaps some days before*), and lodged in the intestines; and if not dislodged by some means, would have soon acted to the already diseased liver as a powerful assistant in undermining the constitution. That there is a considerable secretion from the lining of the intestines, and that it exhibits different appearances in cases of disease of the bowels, is very true; but I cannot agree with him in thinking that “simple food, or aperient medicine would produce a morbid secretion from the bowels, even when the liver is PERFECTLY HEALTHY.” That the most plain or simple diet may irritate the delicate lining of the intestines, is, I believe, an incontrovertible fact; yet the liver may be the remote cause of this; for had it secreted PURE BILE, the

same simple food would have been properly digested, and by that, the lining of the bowels would have been protected from an *acrimonious* mass of undigested food.

The bile (as I believe I have already stated) may appear healthy, inasmuch as the eye can judge; but when the blood is heated, and rendered acrimonious by any cause, the properties of the bile are so much changed, and it is rendered so very stimulating, that instead of answering the salutary purpose which nature had intended, it will always, in such a state, create irritation and pain of the bowels, and if not relieved by nature, or art, the continual application of this diseased secretion to the intestinal tube, must ultimately produce an unnatural secretion from its internal coat. I have not any doubt but that the diseased action, and secretion from the liver, is oftener (yea, always) the remote cause of DYSENTERY, perhaps of ENTERITIS,* than most practitioners are disposed to allow. I am far from wishing to offer any problematical doctrines by way of answers, and I am well aware that in the above assertions I have deviated from my original plan. Besides, and what is still more presumptuous, I have offered an opinion, on the remote and proximate causes of diseases of the bowels, particularly *dysentery*, which is in direct opposition to the doctrines of our medical professors and authors in this country. As I propound a new doctrine, it may be expected that I should also here support it by some probable reasoning. In reply to such expectation, I shall simply say, that neither my time, nor the limits which I have set to this publication, will allow my giving the very many motives which have induced

* Inflammation of the bowels.

me to form such an opinion. But the PRINCIPAL ones may be mentioned in a few words.

First, then, from my never having seen one case of dysentery, in India, UNACCOMPANIED by liver disease, or, more properly speaking, by *diseased action* of the liver. Secondly, from observing (when LEFT ALONE to judge for my patients) that the remedies recommended by the professors of this country were not applicable to the disease in India, even although I was, and am clearly of opinion, that the diseases in both countries are referable to the same causes; but in India every disease appears in a more aggravated form. Thirdly, and *principally*, from the very extraordinary power that mercury had over almost *all* diseases, more particularly *dysentery*; for as soon as the patient's mouth became sore, so soon every bad symptom *vanished, as if by magic*. The evacuations from the bowels, which, previous to the effects of the mercury, were composed of *clotted blood* and *purulent mucous*, now began to assume the healthy appearance, evidently mixed with bile of an *orange colour*; the violent griping, with a sensation of strictures in the bowels, the constant inclination to go to stool, with the *horrible tenesmus*, producing *prolapsus ani*, all disappear—and little is left for the medical man to do, save prescribing mild tonics, with occasional gentle laxatives, and the food which is most nutritious, and least likely to produce excitement. Indeed, if the Europeans in India were from their first going there, to attend more strictly to diet, they would prevent, or at least retard the ravages which the climate is disposed to produce. Their mode of living, together with the heat of the climate, so very much heightens the alkalies-

cent particles of the bile, that *it* may be said to be almost at all times in a state of disease.

In another passage of this *anti-acid* publication, the editor attacks Dr. Scott upon his opinions relative to the *theory* of this new remedy, and says,—“ Doctor Scott “ gravely asserts, that he did once suppose the beneficial “ effects of his nitro-muriatic bath were produced by the “ acid, but he is now satisfied that the active ingredient is “ *chlorine*. In India, he was so convinced that it was the “ acid acted specifically on the constitution, that he adminis- “ tered the nitrous acid internally to such an extent as is “ incredible, and it appeared to him that it proved highly “ beneficial in many instances, and yet this acid does not “ contain CHLORINE.”

Attempting to prove the fallacy of Dr. Scott's present opinions on chlorine, by quoting the *observations* which he made in India upwards of twenty-two years ago, when the subject was in EMBRYO, is both UNFAIR and ILLIBERAL. Had Dr. Scott kept the discovery within his own breast until his arrival in this country, and then attempted to introduce it, I should have considered his conduct (as a medical man) deserving the *highest* censure, yea, I would have deemed it QUACKERY. But no, his conduct was (what every LIBERAL-MINDED MAN must esteem) the most dignified towards the profession, and *disinterested* in every respect. For, almost as soon as he made the discovery, certainly as soon after as any remarks could be made upon it, we find, by the publications of Dr. Beddoes, nineteen years back, (then one of the most scientific medical men in England) that Dr. Scott communicated the discovery, and

the results, to him, with a request, that they might be published in England, so as to give the liberal European practitioners an opportunity of trying it. In one of his letters on the subject to Dr. Beddoes, *dated Bombay, 1796*, he very fairly says: "It cannot be expected that the observation nor the experience of an individual is equal to ascertain the whole effects that an active substance can produce on the human frame. I think I have ascertained several effects of the nitrous acid, and I hope that I have said enough to show, that it is a powerful agent, which may be happily applied in altering some morbid conditions of the body. I suppose that I shall not write any more on the remedy, as it has now gotten into better hands than mine, and am resolved to leave it to its fate, with a conviction, that if I really have discovered a truth of importance to mankind, I have said enough to secure it from being lost; and with a wish, that if I have done nothing new or useful, it might, like many other vain speculations, be speedily forgotten."

Yet we find that even although this letter from Dr. Scott was published by the highly respectable authority of Dr. Beddoes, the *internal* use of the acid got but a very partial trial, and its *external* application (as I have already stated) was never attempted in this country until about two years ago!!

When the gentleman, who writes so vehemently against the remedy, *went so far back as the time* of the discovery, to find arguments to confute Dr. Scott's theory, he should have made himself better acquainted with *his* opinions on the subject. This information he might have derived when in India, (I presume, from his writings, that he was *there*),

by reading Doctor Scott's letters, published in the *Bombay Courier*, in the year 1796, and, if I mistake not, published in London by Dr. Beddoes, 1799. A few lines from Doctor Scott's letters in the *Bombay Courier*, to which I have alluded, will sufficiently prove (were proof of any great consequence in the matter) that he was at *that early period* of the discovery, fully aware that the acid he was then using, was a nitro-muriatic acid.

"The nitrous acid (said Doctor Scott) that I employed
 "was the palest coloured acid that I could procure from
 "Apothecary's Hall. This is all distilled from impure
 "nitre; for it contains a great deal of muriatic acid, as any
 "person may satisfy himself, by dropping into it a little of
 "the nitrous solution of silver, which immediately precipi-
 "tates a *luna cornea*."*

In another part of the same letter, Doctor Scott gives an account of the apparatus used by him in India, to obtain nitrous acid, as the supply sent from England by the Honourable the Court of Directors of the East India Company was expended; and says, "As the nitre that I used
 "contained sea salt, it will be evident that the acid obtained
 "is not a pure acid, but is a mixture of nitric acid, and
 "oxygenated muriatic acid, or it is an *aqua regia*. As this
 "is precisely the case with the nitrous acid of Apothecary's
 "Hall, with the effects of which I was WELL ACQUAINTED
 "from experience, I was less anxious to separate from my
 "nitre the marine salt. This is the acid that I have used in
 "almost all my trials. It is more agreeable to the taste
 "than the acid from England, and, if I mistake not, more
 "salutary in the living body."

* *Bombay Courier*, 1796.

Do not these quotations (without going further) clearly prove, that the acid which Dr. Scott first used in India, "in almost all the trials," contained *chlorine*, and that he was aware of it?

But to revert to the other objections urged against Dr. Scott and his remedy. It is said, "With respect to its mode of operating, Dr. Scott is silent; it gets to the liver, and purges it; but whether the acid or chlorine acts in the nervous system, or through the medium of the circulation, he does not hazard an opinion. That the acid is taken up by the absorbent vessels of the skin, and conveyed to the mass of blood, there can be no doubt."

As to its *mode* of operating, I confess myself (much as I have used it) PERFECTLY ignorant, and therefore most highly approve of that silence which this gentleman condemns. Is it not better, I would ask, to be silent, than to annoy the profession and the public, as the daily scribblers do, perplexing the former, without throwing the smallest light on the subject, with absurd conjectures, and theoretical vagaries, which can serve no one rational or useful purpose? I wish the gentleman, or any other, with an equally sagacious penetration, would render obvious to vulgar eyes, the *modus operandi* of this said acid bath, and many other medicines. Why and how does infusion of senna purge, when that of quassia, camomile, &c. &c. has not any cathartic properties? Why and how does ipecacuanha vomit, while rhubarb, jalap, &c. &c. will produce a different effect? Questions of this kind, respecting the mode of operating of medicines, might be put *ad infinitum*, and the only sensible answer would be—we know their *effects* by EXPERIENCE, but the manner by which those effects are produced, is

amongst the *ARCANA* of nature, and may perhaps never be discovered. However, for the *personal information* of this *author*, I shall take leave to tell him, that he is egregiously mistaken when he asserts, that “ Dr. Scott does not hazard “ an opinion on the *mode of operating* of this bath.” What the Doctor’s present theoretical opinions are, I shall not presume to guess, but this I know, that he did “ hazard an “ opinion on its mode of operating,” so long back as the very time of the discovery, and when he first used it in Bombay; and what may surprise this *anti-bath* author still more, is the fact, that these very opinions, which Dr. Scott “ hazarded” upwards of *twenty years ago*, are the same, (*but expressed in a more correct manner*,) that this said author gives us in his publication now before me, namely, “ that the “ acid is taken up by the absorbent vessels of the skin, and “ conveyed to the mass of blood, there can be no doubt.” Now I shall give him Doctor Scott’s opinion, published in the Bombay Courier, twenty years back, and which, I believe, will be found in another part of this, *viz.* “ I have “ now made it probable, that, *like mercury*, the acid is “ *absorbed* by the skin, and afterwards produces in the “ system the same effects that arise from its internal use.” Were I criticising this gentleman’s work, I should be very much disposed to say, he was guilty of *PLAGIARISM*, for he gives us, *bona fide*, the same *theoretical doctrines* which were published by Dr. Scott upwards of twenty years ago in Bombay, but perchance it was “ *by sympathy*.” As to his assertions, “ that the acid is taken up by the absorbents, and “ conveyed to the mass of blood, where it is likely to produce such destruction,” they are like many other confident assumptions on this subject, made without examination, and

ing without proof; nor should he arrogate to himself, by any sort of prescriptive endowment, a more profound knowledge on medical subjects than other celebrated professional writers, who maintain distinctly, that fluids are not absorbed.

Whether the fluids are absorbed or not, I do not at present mean to argue; but resting upon ocular demonstration, from my own experience, I have no hesitation to declare, that in *not one instance* have I ever seen the acid bath (when used in *proper cases*) produce any of the bad effects which *he* presumes must ensue from it; yet I am free to confess I have been occasionally disappointed by its failure, where a cure was expected. But should it be condemned on that account? If so, I would condemn mercury, in the effects of which I have been in a tenfold degree more disappointed and perplexed; nor, indeed, have I had the same consolation in my disappointment of the latter, nor the same gratification from my success; because, when successful with mercury, I saw it superinduce complaints from which the patient was not able to recover for months, sometimes for years; and when unsuccessful, I always perceived the mischief greater.

I find this author begins to suspect that theoretical objections have little weight, when put in the scale with practice; and he consequently, in another of his numbers, tells us, "An eminent practitioner in the country, who has given this acid bath a trial, informs me, that it uniformly accelerates the circulation, and in some instances has produced an alarming determination of blood to the head, threatening APOPLEXY." What does all this kind of lame information tend to prove?—why, nothing.

This eminent practitioner, or his editor, has not thought

the communication worth the sanction of his name; nor does he tell us what the DISEASES, or SYMPTOMS were, by which ALONE we might judge whether or not the nitro-muriatic bath WAS ADMISSIBLE. Such men may make similar objections to the very best medicines we are acquainted with. Opium, for instance, if prescribed ignorantly, or in peculiar constitutions, will produce the most alarming effects; such as vertigo, tremors, convulsions, delirium, stupor, stertor, and finally apoplexy. Shall we then condemn opium altogether?

The same may be said of tartar emetic, which, in peculiar habits, produces such incessant retching, as perhaps ultimately to burst a blood vessel in the head, lungs, stomach, or some other part. Are we then to abandon tartar emetic? The fact is, if we adduce the peculiarity of constitution, and *blunders of ignorance*, in opposition to experience, I fear we should find every useful article in the *materia medica*, *now and then* guilty of murder.

Perhaps some of those *eminent men*, in their great philanthropy, would recommend a *new Act of Parliament*, somewhat upon the principle of their objections to the acid bath, to be enacted, by which all "implements of war," and the discoverers thereof, should be arraigned for *murders*, and the persons by whom the *deeds* were committed, let pass with impunity. This law most certainly would save the lives of many of our fellow creatures. To be sure, it would at first appear rather a *hard law*, that the inventors should be hanged along with their destructive instruments; but a PRESERVER of mankind would exclaim, they are few in number, and may justly be brought under the clause of aiding and abetting.

“ Another eminent practitioner in the country writes to this author, that a lady in his neighbourhood has lost all the nails of her toes in consequence of immersing her feet in the acid bath.”

The absurdity of this last communication is so manifest, as scarcely to deserve being noticed. There is not an apothecary's apprentice of six months' standing, who does not know that this ludicrous objection to the acid bath is false. Perhaps the lady's nails were decayed; and in that case, had she put her feet in hot water alone every night, it would, doubtless, have produced the same SALUTARY effect, and she would then get *new nails*.

I have *repeatedly* put my hands, for five or ten minutes, into a two quart mixture of this acid, in the proportion of one part of acid to *four* of water, and without producing any other bad effect than to discolour slightly the nail and skin, which *soon* disappeared, (and this discoloration was caused by impure acid;) and yet we are told, that a lady lost all the nails off her toes by using the bath as generally ordered, the proportions of which are about *one* part acid to *one hundred and twenty* of water. But admitting, for sake of argument, what is *not true* in point of fact, that the lady actually lost the old nails off her toes, will she not get new ones instead? Do any of these eminent country practitioners fancy that they could induce the medical world to forego the use of mercury, by publishing its destructive consequences? It is not that mercury will make a person's nails fall off, but it may make the hair, and, if necessary to be continued long, will effectually destroy the enamel of the teeth, and the very roots.

Before I take leave of this subject, I would, in the

diffidence of an individual who is conscious of his inferiority, beg leave to offer some advice to this modern publication; namely, to reject, *in toto*, all anonymous communications, as it must be evident, that empirical miscreants will always avail themselves of the facility it offers to them, of declaiming, in the hardihood of gross fabrication, against remedies, of which they are as incompetent to judge, as incapable of estimating.

We are next informed by this author that “ Mr. Goutherie, deputy inspector of military hospitals, has lately used the nitro-muriatic acid bath, in the York Hospital at Chelsea, in a variety of medical and surgical cases, especially in those where the use of mercury was indicated, and where it had failed to produce a good effect. The manner of using the bath, as well as the proportions of the acid, were varied. In his first trial, the acid was used in the proportion of three parts of nitric to one of muriatic, and this mixture was not measured, but poured into the water till it was very sour. This changed the colour of the nails to yellow, and was only used for the legs. It was afterwards used in the proportion of eight ounces to forty gallons of water, and subsequently to twenty gallons, when it was employed as a bath; and with these proportions the greatest part of the experiments were made. On many patients it did not produce any sensible effects, except what might be attributed to warm water alone. In some cases it produced effects which are not usually attributed to warm water. Mr. Goutherie then gives his opinion, that no dependance can be placed on any particular proportion, and that it is very uncertain in its operation. To produce any effect by it, it is necessary that a large sur-

“ face of the body should be exposed to its action, and in
 “ that case it should not be so strong as to affect the skin.
 “ From a simple immersion of the feet and hands, as recom-
 “ mended by Dr. Scott, Mr. Goutherie is satisfied, that no
 “ benefit will arise to the patient.”

I have not seen the publication, from Mr. Goutherie, to which this author alludes, and can therefore only remark upon the abstract with which we are favoured; nor should I be much disposed to MENDLE WITH THE ARMY, particularly in this instance, but for two reasons: one is, that it would be intentionally deviating from my first determination to notice every thing relative to the remedy in question, whether *for or against* it, which might come to my knowledge. The other reason, and not the least cogent, is, that Mr. Goutherie ranks so high in his profession, his *ipse dixit* would tend more to the condemnation of the remedy, than all the theoretical arguments that could be brought against it. That Mr. Goutherie's experiments were extremely incorrect, he will himself (I have not the slightest doubt) admit, when it is known, that the proportions of the acids which he used (three parts of nitric to one of muriatic) are directly the opposite of those which I have always found best, namely, three parts of muriatic to one of nitric. Besides, we are then told, that “ Mr. Goutherie's mixture was not measured; “ afterwards, he used it in the proportion of eight ounces to “ forty gallons of water, and subsequently to twenty gallons. “ Mr. Goutherie then gives his opinion that no dependance “ can be placed on any *particular proportion*, and that it is “ VERY UNCERTAIN in its operations,” even although it appears very evidently, from Mr. Goutherie's *variations* in its use, that he was misinformed or ignorant, not alone of

the proper mode of preparing the acid, but also of the quantity which is, generally speaking, used to each gallon of water.

It is well known in the army that Mr. Goutherie's exertions to promote medical and surgical knowledge, were ever indefatigable; no man, therefore, can hesitate to say, that his intentions, in giving the acid bath a trial, were solely to ascertain the truth, and contribute (by his sanction and recommendation) still more to the too small fund of our knowledge. But in this instance, whatever his exertions might have been, they must of necessity prove unavailing, because he had not any (or at least not good) information respecting the subject; consequently, he was unfit to proceed upon the trial or sit in judgment. The "opinion and sentence," therefore, that "no dependance can be placed on any particular proportion," &c. &c. must be *rescinded*, inasmuch as it was given without hearing or seeing *proper evidence*.

That the result of these trials by Mr. Goutherie did not reach the attentive eye of his Royal Highness the Duke of York, or, if they did, were not satisfactory, is evinced by an order which (*I understand*) his Royal Highness issued to the Medical Board, to give the nitro-muriatic acid a fair trial, upon the plans best known and most approved.* When I heard of this order, and *saw* the trials were made with the utmost ingenuousness, (*which I knew, from experience, was the only thing necessary to ensure its success,*) I confess that I was very highly gratified; I felt what a source of comfort and happiness it must be to the poor afflicted soldier to

* This order from his Royal Highness the Duke of York was two years subsequent to Mr. Goutherie's trials.

observe, that in his *commander-in-chief* are concentrated, the *officer*, the *director*, the *friend*, and the *physician*!

In consequence of this order from his Royal Highness the Duke of York, many trials have, of late, been made at the York Military Hospital, Chelsea. I had permission to visit the patients at all times,* and, I understood, leave was granted to every medical man to visit the Hospital, at proper hours. During the period of my visiting these patients at the York Hospital, I have not had the honour of meeting Mr. Gautherie, and consequently am unable to say whether or not he witnessed any of these late trials. The surgeon whom I had the pleasure of meeting there was Mr. McCloud, whose scientific observations on the different diseases afforded us the greatest assistance in directing our practice, and forming a prognosis. But his ready liberality to forward our views, deserves our public thanks; while a much more grateful tribute to a generous mind seemed already secured to him; namely, the fervent prayers and regards of the poor afflicted soldiers.

The extraordinary good effects that this remedy (the acid bath) produced in a variety of diseases, or symptoms, at the York Hospital, were well worthy the attention of any medical man; and although I took notes (*for my own satisfaction*) of the most important of those cases, yet I do not

* Dr. Scott was applied to, at this time, by the Army Medical Board, (I understood, by the desire of his Royal Highness the Duke of York,) requesting him to point out the patients on whom it ought to be tried, the proper mode of mixing and using the acid, and to direct the whole of the treatment of these patients, *pro tempore*, assisted by the medical staff of the Hospital. As Dr. Scott's health did not permit of his making any great exertion, he applied to me to assist him; and this was the reason of my having a *carte blanche* to visit the Hospital at all hours.

feel authorized to touch upon them in this publication ; nor, indeed, do I feel any *desire*, because they are in hands much superior to mine, and more competent to the task of publishing them, which I sincerely hope will be done.

In the second edition of Dr. Scudamore's excellent Treatise on Gout and Rheumatism, I find he notices the nitro-muriatic bath, and mentions five cases, wherein he gave it trial. Dr. Scudamore very properly observes, " Such " is the difficulty of ascertaining the true character and value " of any new remedy, that the investigation of its merits " cannot be too general; and the communications of every " practitioner, which are offered with care and candour, are " entitled to be received as useful." But I am far from agreeing in the justness of the next observation made by this respectable practitioner; and it is to me matter of no ordinary surprise, how a gentleman of his sound reasoning and liberal turn of mind, should possibly have made it, namely, " In a " science so obscure and difficult as that of practical medi- " cine, both doctrines and remedies must pass the full ordeal " of time and opposition, before they should be admitted as " substantial, or dismissed as useless. It is under such " impressions, that I proceed to the examination of the pre- " sent very popular remedy."

That doctrines and remedies should be received with the utmost caution, is a truism which needs no elucidation; but CAUTION and OPPOSITION are *very distinct*. And why is it necessary, that a remedy must pass the ordeal of *time*, unless *that time* be spent in acquiring a knowledge of it?

If we had a medical tribunal, like the Army Medical Board, before which every new discovery would be laid, and at the *head* of which was such a man as his Royal Highness

the Duke of York, then the public would not be perplexed by the doubts and fears, and various opinions upon every new discovery ; because the governor of *this tribunal* would immediately direct that the discovery should have a *fair and open* trial ; and in the event of its being found useful, would give it the most extensive publicity : while, if the contrary were the case, and that it was proved to be either injurious, or of no utility, it would be abandoned for ever, and consigned to oblivion. Although trials by private practitioners are very desirable, yet they are by no means so satisfactory, or so much to be wished as *public experiments*. I need not attempt to enumerate the many circumstances which preclude the private practitioner from the possibility of forming just opinions upon a new remedy ; suffice it to say, his medical character is *too much at stake*, and exposed to the SARCASTIC remarks, and *sneers*, of those competitors whose scepticism, or, what is much worse, *illiberality*, prevents them from giving it trial : and if he has not had a *prior knowledge* of the remedy, he gets timid, and abandons it, with *premature* distrust. This timidity (*the child of ignorance*) is greatly *heightened* by the anxiety and irritability of the patients, who feel perhaps disappointed that this new remedy is not producing the expected *charm*. Independently of these difficulties, which the private practitioner has to encounter, he also bewilders himself by nonsensical inquiries after theories upon the probable *modus operandi* of the remedy ; whereas Dr. Scudamore *aptly* remarks, “ The facts respecting the remedy, and not the theory, are the points most worthy of discussion.”

Indeed, when we consider the changes that take place *in nature* by the combination of simple substances, as, for

instance, the combination of an acid with an alkali, we can easily imagine how utterly impossible it must be to form a *reasonable conjecture* upon the many changes and *decompositions* that may take place in the course of *an hour*, by the introduction of substances into a heterogenceal mass like the human frame. The attempts at explaining the changes that occur in the *human alembic*, are certainly very beautiful to read, and highly PRAISEWORTHY, provided they are not put in opposition to *reason* and *long experience*.

I do not think that any medical man (however high he ranks in the profession) feels himself authorized to fairly try, in private practice, a new remedy, with the effects of which he is totally unacquainted; nor is he justifiable to risk his character by undefined experiments on his patients. Our hospital and dispensary books shew hundreds, yea, thousands of diseased beings, *fit* enough for any experiment, creatures for whom the whole materia medica has been repeatedly ransacked in vain. *They were* perhaps mercurialized, until the constitution, instead of the disease, gave way. They are then allowed to rally, and after a little time the *mercury*, as the only hope, is resumed; the constitution again (by some *extraordinary forwardness of nature*) yields, in lieu of the complaint,—yet still the order is continued in *Indubitable* style—

“ Let them rest awhile, and then—

“ Cry whoop, and set them off again.”

It appears to me a matter of surprise, that *four* of the *five* cases, in which Dr. Scudamore has been unsuccessful, were (by his account of them) the very complaints wherein I should have been (*from my experience* of the remedy) almost certain of success.—If Doctor Scudamore meant, at

the time, to publish the cases, he should certainly have given the remedy a better trial.—In four of the five cases, I observe the remedy was not used beyond *twelve nights*, and in one of the five (himself) only six nights; besides, although Dr. Scudamore tells us the proportions of the acids to each quart of water, we are ignorant of the quantity of the acid in each bath; or the time that the feet were kept in the tub, or the ablution of the legs continued each night. As to its not producing any apparent effect by eight or ten nights' *partial* use, I am not astonished. If apparent effects are required in every disease or constitution, why do we give two or three grains of blue pill, or from half a grain to a grain of calomel, every night, for perhaps several weeks, *without* producing any apparent effect? This plan is what is *termed* an alterative* course of mercury. Might we not, then, on these grounds suppose, that the *quantity* of the nitro-muriatic acid, which Dr. Scudamore used in his trials, together with the time of using, was not sufficient to produce an apparent effect? but, had he persisted for some time longer, and occasionally administered *aperient* medicine, perhaps the remedy would have acted as an alterative, and the patients would have experienced benefit, without their being able to attribute the amendment to any particular evacuation by *urine* or stool.

In Doctor Scudamore's FIFTH trial, upon himself, he says,—“ Lastly, I made trial of the remedy on myself, being “ at the time, as it is in common language expressed, slightly “ bilious.” I should have liked that Doctor Scudamore

* Remedies are so called, which are given with a view to re-establish the healthy functions of the *animal economy*, *without producing any sensible effect*.

favoured us with his symptoms, for, “in common language,” bilious seems to imply pretty nearly as much as the vague word nervous, and generally with *as little* meaning.—When the action of the liver is excited by any cause, and a greater quantity of bile than usual flows into the intestines, and some into the stomach, producing slight purging, and perhaps vomiting of bile, the person thus affected, may be said (with propriety) to be bilious. But then others tell you they are *bilious*, when there is scarce a PARTICLE of bile in the intestines to perform the *necessary functions*, and the liver, for days, perhaps weeks or months, almost in a state of **TORPOR**. A Bond-street loungeur will tell you he is *extremely* bilious, in consequence of being up *all night* at a rout and ball, eating supper and drinking wine, &c. &c.; when the *fact really is*, a quantity of crude matter is accumulated in the stomach, in consequence of a LATE dinner, and the precipitate gorging of heterogeneous viands; upon which the *gastric juice*, with the other powers of the stomach, are unable to act, or perform what is termed chymification.—So far is the bile from being *accessary* to the sufferings of a person in such a state as I have just described, that it might be said to be **PATIENTLY** waiting the arrival of the prepared food in the duodenum, to assist the completion of digestion. An emetic will quickly relieve all the *ideal biliousness*. I have often seen persons in this state (*called bilious*) suffering for days, nature attempting to *relieve herself*, and the stomach, as if labouring to perform its *functions*. To a medical man it will not appear so extraordinary, that undigested food should remain so long in the stomach, without passing *on* to the intestines; but to *others* of my readers, it may not be unnecessary to state, that the inferior aperture of the stomach, called the pylorus,

which opens into the duodenum, has, we suppose, a power of contraction, by which it *precludes any aliment* passing that has not undergone the necessary process in the stomach. How this orifice of the stomach will admit the prepared food, and prevent the *other* from passing, is (*like many other questions connected with the animal economy,*) *problematical*, and consequently not *demonstrable* by *physiology*.

The next observations from Dr. Scudamore, which I think it requisite to remark upon, are the following :

“ I admit that my experience with it has not been extensive, and therefore do not offer it as conclusive. I cannot help at the same time remarking, that when this remedy is brought forward in apparent opposition to the usual method of practice by mercury, we should proceed very carefully in our estimate of its powers; and it would be matter of regret that an active agent in medicine, and one which with proper use is really successful, should fall into unmerited odium from the inferior, if not unworthy pretensions of the remedy now in question, which is certainly one very troublesome in its application, both as to the mode of its employment, and the time required, as stated by the author, for its use.”

I cannot agree with Dr. Scudamore that “ this remedy is brought forward in apparent opposition to the usual method of practice by mercury.”

From my PRESENT knowledge of the nitro-muriatic acid, I would merely offer it as a powerful AUXILIARY, and as a substitute in very many *diseases* and *constitutions*, where *all* agree that *mercury* would be destruction. But suppose, for a moment, that the nitro-muriatic acid was really offered as a substitute in *all cases* for mercury; where is the danger

that this necessary *evil* (*mercury*) will “fall into *unmerited odium* from the inferior, if not *unworthy* pretensions of the “remedy now in question?” On the contrary, if this new remedy is proved to be “inferior or unworthy,” our estimation of mercury *must* be raised *still higher* than ever.

Thus it *would* have been with *oil*, had not the gas BRILLIANTLY evinced its *superiority*; and *ought* we then to blindly mope through towns by night, like our forefathers, rather than admit the *great* discovery? Nor has the oil fallen into odium, but only into disuse, *wherever* the gas is *admissible*.

If then we possess, as from experience I think we do, in the nitro-muriatic acid, a means by which we *can cure* very many diseases without the aid of *mercury*, and in other cases, an auxiliary by which our patients are saved the misery of swallowing or *rubbing* in one twentieth part of the mercury heretofore requisite; can any person (*after this is proved*) be so obstinate or sceptical as to doubt the utility of the discovery? As to its being a remedy “very troublesome” in its application, both as to the mode of its employment, “and the time required,” I shall merely answer that I wish these were the only objections. When we want to cure our fellow-creatures of *diseases*, trouble, inasmuch as the medical man is concerned, should be quite out of the question; but even although we take *this* into calculation, I would ask, is not the trouble, time, and application trivial, when compared with the dangerous and distressing process of *mercury*? Have we not seen, and do we not daily see, patients confined to *hot rooms*, taking mercury *internally*, and each night, for *several* weeks, placed before a *fire*, for thirty or forty minutes, to rub *one, two, or three* drachms of mercurial ointment into

the legs and thighs, and *arms* and *side*, until by the constant friction, the patient is so covered with pimples, that the ointment must be discontinued? By this process (*the necessity of which I do not mean to question, if nothing better is discovered*) the patients are *imprisoned* for weeks, *perhaps* months, with their teeth nearly dropping from the sockets. If the bad effects of long courses of mercury were only confined to seclusion from society and loose teeth, those circumstances alone should induce us to avoid its use whenever we can *possibly* do so.—But these effects are the most harmless that result from it. I believe it may be said, with the utmost truth, that when a large quantity of mercury is given, (*I mean mercury often repeated,*) the bad consequences are little more than counterbalanced by its good effects. We cure the patient, it is *true*, of *one* complaint, but then we *produce*, or *lay* the *foundation* of some other undefined or unknown malady; called by some syphilis, by others pseudo-syphilis, (*an unmeaning term*;) by others again the mercurial disease, &c. &c. Perhaps the truth is, that mercury, as has been before observed, superinduces, in certain constitutions, a new disease, or *more properly speaking*, calls into action a disease differing in every symptom from that in which we are in the habit of viewing it; I allude to *scrofula*, upon which I shall take another occasion to treat more at large.

On Mr. Charles Bell's successful cases, wherein the nitro-muriatic bath was used, Dr. Scudamore observes—

“Introducing the subject, he (*Mr. Bell*) speaks of this
 “description of patient as being half poisoned with mercury,
 “and still suffering from his disorder or its sequelæ; and
 “under such circumstances he appears to offer the present
 “treatment *chiefly* as a substitute for a well-regulated course

“ of mercury, or for sarsaparilla, milk diet, and country air. In referring to the operation of the remedy, he says, ‘ we have seen salivation and sore gums produced in two instances.’ On reading this statement, the idea occurred to me, that when the acid liquor is freely and repeatedly applied to the skin of a patient, whose system is already highly charged with mercury, a chemical action would be produced on the surface, and hence a new and active combination of the acid and vapourised metal might be supposed to result. If this view be just, it would afford an explanation of the *modus operandi* of this agent in such cases; so that it might on many occasions be an eligible method of administering a saline preparation of mercury, without inconvenience to the stomach and bowels.”

I differ *most materially* with Dr. Scudamore respecting the meaning of the words “ half poisoned with mercury,” which Mr. Charles Bell makes use of. I do not think that Mr. Bell could possibly mean to say, that the *system* of any one of the patients then treated by him, was under the *influence* of mercury, or, “ highly charged with it.” Dr. Scudamore’s conclusion, therefore, on the *cause* of the effect by the nitro-muriatic acid, is in my opinion quite erroneous.

As to Dr. Scudamore’s “ idea,” that “ when the acid liquor is freely and repeatedly applied to the skin of a patient whose system is already highly charged with mercury, a chemical action would be produced on the surface; and hence, a new and active combination of the acid and vapourised metal might be supposed to result;” I declare the “ idea” is so TOTALLY above my *comprehension*, that I certainly am not prepared either to receive it as probable, or reject it as groundless.

But surely Dr. Scudamore cannot mean to tell us, that even although there was any REASON to support the idea of a "chemical action produced on the surface," that *this* "might on many occasions be an eligible method of administering a saline preparation of mercury, without inconvenience to the stomach and bowels."

Would it, on any occasion, be advisable to *first* charge the system with mercury, and then use the nitro-muriatic bath, by way of "administering a saline preparation of mercury?"

Having offered the preceding remarks in refutation of the opinions advanced against a remedy which certainly has been prejudged, it now remains for me to subjoin a series of cases wherein it has been found eminently beneficial; and to call the earnest attention of an enlightened public to so valuable a discovery.

I much wish my experience entitled me to state with certainty, the diseases in which the nitro-muriatic acid might be employed with advantage, and those wherein it is inadmissible; for I am fully convinced that there is not any thing more likely to bring this valuable remedy into disrepute, than generalizing its use, and proposing it in forlorn cases, where every other remedy had failed, and at a time when nothing but the *special hand* of Providence could be of service.* Yet I have not any doubt the range of its utility will be found very great. It has a particular influence in restoring the healthy functions of the liver, and hence (in

* Many medical men have said to me, when the patients were in the *last stage* of disease, and their lamp of life within perhaps a fortnight of being extinguished, "Don't you think this a *good case* for the acid bath?" My answer in general was, I think it a *BETTER* case for the UNDERTAKER.

my mind) is the source of its power in the removal of *many* other complaints. Dr. Scott tells us, (*see the Medico-Chirurgical Transactions*, volume the eighth,) when speaking of the chronic affections of the liver, the “ chronic hepatitis is a “ far more common disease than the acute ; but it may be “ considered as always partaking of the nature of both. One “ portion of the same liver is often insensible, enlarged, and “ inactive, while another part of it is suffering from all the “ symptoms of acute hepatitis, and going on to the formation “ of pus. It is the mixed disease that we meet with so “ generally in India, as well as in this country ; and it is “ this state of the liver which gives rise to so great a variety “ of anomalous symptoms. This affection of the liver pro- “ duces a vast variety of diseases, to which various names “ have been assigned. To describe them well, would “ require much time, and occupy many volumes. The pro- “ cess of digestion has an intimate connection with the bile ; “ if this be depraved, the stomach and intestinal canal par- “ take immediately of the disorder. The brain, which “ seems to be the source of feeling and motion, is connected “ by means of numerous nerves with those abdominal “ viscera, by which so many of the functions of life are “ carried on. A diseased state of the bile has a wonderful “ influence on the whole nervous system : it gives rise to “ pain and giddiness of the head ; a great dislike to motion, “ and a sense of weakness, rather than actual weakness ; “ cramps come on in the legs while asleep, the soles of the “ feet are tender and painful, and at times the sick rather “ drag them than raise them when they walk. There are “ other symptoms, though less obscure, perhaps, in their “ origin, that are often connected with the chronic affections

“ of the liver. The blood cannot pass through it with the
 “ facility necessary to health, nor is it possible to relieve it
 “ effectually from such a state, but by giving solubility to
 “ the bilious matter. It then passes off abundantly through
 “ the proper channels into the duodenum. If, from obstruc-
 “ tion or enlargement, the blood be prevented from circulating
 “ with ease in the liver, a general disorder of the whole frame
 “ becomes apparent. The feet and ankles swell, and a
 “ fulness in the head comes on, with head-ache and giddi-
 “ ness, and a train of unhappy feelings. In this country it
 “ is a common practice to have recourse to the abstraction
 “ of blood by cupping, or by the lancet, in order to alleviate
 “ such symptoms. The first effect of this practice is, no
 “ doubt, occasionally to give relief to the head; but this is
 “ only temporary. An equal quantity of blood is again
 “ accumulated; a repetition of blood-letting is required;
 “ the state of weakness continues to increase; and the
 “ patient falls a victim at last to an injurious practice,
 “ derived from a theory altogether erroneous. It is not by
 “ letting off a part of the blood, that we can do any good;
 “ for it is neither too abundant in quantity, nor bad in
 “ quality. The fulness of the head, as well as of the feet,
 “ does really arise from the remora to the blood in another
 “ portion of its circuit; and in both extremities of the body
 “ it is produced by one and the same cause. I need hardly
 “ say that melancholy and despondency of mind are often
 “ connected with a peculiar state of the bile, for this has
 “ been observed in all ages. This state of mind I have
 “ often seen removed by a proper use of the nitro-muriatic
 “ bath; and people of both sexes have assured me, that they
 “ thought it had preserved them from the crime of suicide, to

“ which, during the horrors of their feelings, they had an alarming tendency.”

The bills of mortality shew that there are more deaths in this country from plithisis* than by almost all the other diseases conjoined: hence many have asked me if I would recommend the nitro-muriatic bath in this perplexing malady. In answer I should say, that, in my opinion, nearly seven of ten of those diseases supposed to be *purely* consumptive, are really not so; the affection of the lungs being a symptom of a diseased liver, stomach, or other viscera of the abdomen.

Those therefore are more properly termed *hepatic phthisis*, or in plain language, consumption produced by disease of the liver, and consequent general disease of the other digestive organs. In such cases (*supposed to be consumption*) I have seen the most beneficial effects from a proper application of the nitro-muriatic bath, and, consequently, would strongly urge its use. The lungs in those cases are remediable only through the medium of the liver; and in proportion to the removal of the exciting cause, so will the symptoms of consumption disappear.

These LIVER CONSUMPTIONS, (if I may be allowed the expression,) are the diseases which induced some of our eminent practitioners to assert, that consumption was curable by mercury.† Those who imagine that the mercury has a specific action on the lungs, are, in my humble opinion, very greatly in error; and I believe they will find, when the lungs become much affected, that mercury will accelerate

* Consumption.

† I have little doubt that this species of consumption was the disease which induced the great Dr. Sydenham to declare, that “mercury for lues venerea, or bark for intermittents, are not more certain specifics, than riding on horseback for consumption.”

the fatal termination. In the advanced state of hepatic consumption, a superficial examination will not be sufficient to discover, that the liver and other digestive organs require the *most* care. The state of the lungs is then so alarming, that the cause may be said to be eclipsed by the effect. It is to me, I confess, a matter of astonishment, perhaps a blessing to society, that parents resign their children, and others their dearest friends, with the utmost composure, to the destiny of this disease, which they deem incurable, but which, (*if not mistaken for what may be called REAL consumption,*) is perfectly within the reach of medical art.

As the paramount duty of every medical man is, to prevent disease, some account of the symptoms which precede, and seem to lay the foundation of this insidious disease, (hepatic phthisis) will not therefore be deemed superfluous. When attempting to get at the origin of this disease, I have almost always observed, that the primary complaint was constipation of the bowels. That this is caused by a torpid state, or morbid action of the liver, I think there cannot be a doubt; the colour of the faces prove it; but more particularly the regularity of the bowels, when the healthy functions of the liver are fully restored. I am aware that in many constitutions, this torpidness of the liver, and consequently of the bowels, may continue a very long time without producing any serious, or very apparent mischief; but in most cases it will undermine the best constitution, and if not attended to in time, will shortly usher to our notice, a train of most distressing symptoms; which generally commence by a fetid breath, acid eructations, great languor, total loss or depravity of appetite, with coldness of the legs and

feet.* To these supervene head-ache, vertigo or giddiness, loss of memory, peevishness, with a desire to shun society; at length more apparent and alarming symptoms shew themselves; as, a death-like paleness of the lips and gums, a greenish yellow colour of the skin, (*named chlorosis,*) quick, irregular, sometimes slow and labouring pulse, occasional violent palpitations of the heart,† or a short teasing cough; the bowels are sometimes very much relaxed, the sleep is disturbed by frightful dreams, and the person awakes unrefreshed. The breathing becomes difficult, and upon the slightest motion is much hurried. If in females, the menses become very irregular, not unfrequently suppressed.

The cough becomes more troublesome, particularly when the person is placed in an horizontal posture. There is soreness of the fore part of the chest, but seldom complained of, unless when the cough is frequent. The urine is almost always very deep-coloured, with sediment, sometimes floating mucous, and occasionally *ardor urinæ*. A pain in one or both of the *scapulæ* (or shoulder blades) is very commonly complained of. The languor and indolence daily increases, the body becomes gradually *leaner*, and the spirits greatly dejected.

The palms of the hands and the soles of the feet are often affected with a burning sensation. The person frequently complains of a sense of cold, at the same time that the skin is *preternaturally hot*. As the disease advances, the tongue

* By depravity of appetite, I mean, an aversion to the usual food, and a desire for substances which are indigestible.

† I have often seen the palpitation so great as to produce a throbbing sensation at the stomach, and hence be mistaken for (*what it might ultimately produce*) *aneurism* of the *aorta*, or heart.

and fances appear inflamed, or rather, morbidly clean. Sometimes the mouth is beset with *aphtha*.* The face is generally pale and the countenance dejected.

Many of the symptoms which I have enumerated, are attributed to some peculiarity of constitution, but more commonly hereditary disposition to disease; and in consequence of the latter idea, inquiries are made for the purpose of ascertaining if any of the family died of *consumption*; if so, the case is *plain*, the event inevitable. The seat, or origin of these complaints, namely, the liver, is seldom if ever referred to by the invalid; but upon an examination of the region of this organ, an obtuse pain is generally complained of, which is much increased by pressure and coughing.

I have often remarked, that when the pain of the liver was most obscure, or rather the disease deep-seated, the affection of the lungs, or symptom of *consumption*, was greater, and increased more rapidly. In the last stage of *hepatic phthisis*, the symptoms (in as much as the lungs are concerned) appear to me precisely similar to those of a *PURE* case of *consumption*, unconnected with liver disease, except that in *hepatic phthisis* the person seems fully aware of the danger: but not so in the other disease; the patients, almost to the last hour, flatter themselves with a speedy recovery, and form the most distant vain projects. This is a most distressing thing to witness, when one sees there is not the shadow of hope remaining, and can fancy death at the instant hovering round the bed.

* Like the complaint vulgarly termed *the thrush*.

MODE OF MIXING THE ACIDS,

AND

USING THE BATH.

IT is of the utmost importance to pay attention to the *uniting* of the acids, so as to prepare them for the bath; and also to be careful that the acids be *pure*; for on these depend the success or failure of the remedy. If NITROUS acid be used in lieu of NITRIC, and IMPURE muriatic acid, the compound will of course differ essentially, *if not totally*, from the other, independent of its *discolouring* the skin and *nails*. The acids which ought to be made use of, are the *nitric* and *muriatic* acids. The combination of these two acids (in given quantities) forms what is termed "*nitro-muriatic acid*," which is that used for the bath.

The *alchymists* gave to this compound the name of "*aqua regia*," because they found it capable of dissolving gold, "*the king of the metals*." They were doubtless delighted in having made such a discovery, and not troubling themselves further with an investigation of its properties, naturally agreed that the fluid which had the extraordinary power of dissolving gold, well merited the name of "*aqua regia*." When Dr. Scott first prescribed the acid bath, he recommended, in mixing the acids, to use *equal* parts; he afterwards directed three parts of the muriatic to two of *nitrous*, finding that these proportions formed a mixture more similar to the old "*aqua regia*," than the former. As we were very certain the good effects of the bath depended upon the water being fully impregnated with *nitro-muriatic acid*, and that without its containing any *surplus* of the *nitric* or *muriatic*, (as these tend to alter its properties, and render

its effects doubtful,) it became (and is) a desideratum to discover what proportion of nitric acid was requisite to saturate with oxygen a given quantity of muriatic acid, without any adulteration. Amongst all the different proportions of the acids which I have tried, I find none so good in its effects, or so nearly to stand the *test* of oxygenated muriatic acid, as those which I have used for the last four or five years; viz. *three parts* of colourless muriatic acid to *one* of nitric. I mentioned the proportions I had used, and the result of my trials, to Dr. Scott, who, I believe, prescribed the very same proportions recommended by me. Some degree of care is necessary in mixing the acids, and in proper vessels, (wide necked) for when nitric acid is poured upon the muriatic, the liquor gets heated, and an effervescence is produced, which would be likely to burst the vessels, *were they narrow necked*. To unite the acids with safety, let a jug be used capable of containing *more than twice* the quantity about to be prepared. Put into the jug a quantity of water *equal* to the *whole* of the acids which you are going to mix: let the muriatic acid be first added, and well stirred with a stick, or delf spoon: then pour in the *nitric* acid, and *restir* it. When the nitric acid is poured in, an effervescence may be observed, and *fumes*, having a very peculiar smell, escape during the combination of the two acids. This is *oxygenated muriatic* acid, (chlorine) disengaged during the process. Let this liquor (nitro-muriatic acid) remain in the jug for a few minutes, and then be decanted into glass bottles with stoppers, if for keeping any time, as the acid would very soon corrode the corks. To prepare a bath, let *one* wine glass-full (supposing the glass to contain two ounces) of the *prepared* acid be added to each gallon of water. This quantity I mention as a kind of general rule, but it often requires modification, according to symptoms. The heat of the water must be regulated by the patient's feelings and symptoms present, but in no case should it be used too hot, but only agreeably warm. When the hip or slipper bath is

used, the quantity of water and acid is of course great; it may therefore be of service to mention here, that a great portion of the old bath will answer for three or four times, by reheating it in the following manner, viz.: throw away *one half* or *one third* of the old bath, and add of *boiling* water to the remainder as much as will make it sufficiently warm, then as much of the *prepared acid* as will bring the whole to the *usual strength*. The bath should never be made so strong as to produce any unpleasant prickling of the skin. The strength of the bath, the time required to use it, and the frequency of its repetition, must (like the administering of other medicines,) be regulated according to the disease, the delicate state of the patient, symptoms present, &c. &c. By a reference to the cases given, it will be seen, that I generally ordered the patients to remain in the bath, at its commencement, about fifteen minutes, and gradually increased the time to thirty or forty.

The vessel used as a bath must be of either wood or delf, and on no account should the *tin* bath be made use of; for independent of the acid destroying the tin, the nature of the acid itself would be changed by its action on the metal. The *leg* bath should be *narrow*, and deep enough to reach to the knees; and in using the hip or a full bath, the same manner of preparing it is adopted. The water may also be applied, by means of a sponge, to the *abdomen* and *arms*. The sponge and towels made use of should be thrown into plain water, as the constant application of the acid to such things is apt to corrode them. In applying the acid bath by means of a sponge, no friction should be used, as it produces *pimples*, which obliges the patient to omit the bath for a few days, or until these disappear. The bath should be gradually increased in strength, until the patient *feels* a *very slight* tingling of the skin, but not beyond.

consequence of a cold and slight cough she lately complained of, and which was supposed to have been caused by the former method of sponging. She used this bath almost every day for six weeks, during which period I never had occasion to order her any opening medicine; her bowels were generally moved twice, and sometimes so often as to induce me to leave off her bath for two or three days. The stools were seldom of the same colour for two days together; but until a month from the first time of using her bath, there was not any appearance of pure bile in the evacuations. Her strength daily improved, and the tumors on the neck gradually decreased, except one, and that regularly suppurated was opened with a lancet, and discharged HEALTHY PUS, which continued a few days, and then healed. The ulcer which was originally open on her neck did not perfectly heal for upwards of three months, but the discharge for the last five or six weeks was trifling, and *pure pus*.

It is now five months since she became a patient of mine; and, I think, adding all together, she may have used the bath about *three* months of those five. The evacuations for the last two months appear perfectly healthy, strength restored, appetite much increased; she is still kept upon bread, milk, and vegetables, with a little animal food, and that of the *plainest sort*.

I neglected to mention, (from a memorandum which I found amongst my notes of this child's case,) that at one time when the bath was continued

skin. I ordered her to take a little infusion of senna and salts* every second or third day. On the fourth day after her using the bath, she was purged three times, her stools were perfectly green—her bowels were after this affected once, sometimes twice a day, *without the use of opening medicine*. The glands of her neck, which were open, seemed to put on a more healthy action, the others rather increased, and got softer; her general appearance better; spirits and temper improved. About the eighth day she complained of nausea and head-ache, eyes dull, bowels once moved, stools scanty and black. Left off her bath, gave her three grains of calomel at night, and eight grains of rhubarb next morning—previous to the taking the rhubarb, her bowels were moved once; and after six times, very freely—the stools at first were very fetid pale slime; the last two or three perfectly black green. Although by these evacuations her strength seemed lowered, her other symptoms were much better.

She did not resume her bathing for four or five days, and took no medicine except one ounce of camomile tea (*cold*) twice daily. Bowels now moved once a day, stools colourless. When she again commenced her bath, I used a tub large enough for her to sit in, and as much water as reached a little above her hips.† This plan was adopted in

* This was the aperient medicine she was in the habit of taking.

† To make this bath it took about five gallons of water, to which five ounces of the compound acid were added, increasing or diminishing the quantity as before, according to circumstances.

the BANE of England. When I saw her, she had two or three indolent tumors of the glands on each side of the neck, and one which had suppurated nine months before, occasionally discharging white curdled matter, and sometimes an ichorous fluid. Her countenance pallid, emaciation and general debility great—a tumefaction of the abdomen,* bowels torpid, (almost every day obliged to take aperient medicine,) stools varying in colour, but never natural; tongue almost always foul; appetite bad.† I ordered her to have meat only once a day, and then very sparingly; plenty of vegetables; milk two or three times daily, and not any wine or porter. I directed her to use the nitro-muriatic bath—by placing her legs (*to the knees*) for fifteen or twenty minutes each night in a tub containing three gallons of water, to which three ounces of the compound acid were added, and to sponge herself all over for five minutes. This plan was persisted in for about a week, increasing or diminishing the acid, as it seemed to prickle the

necessity of the hand being bloody. If this ridiculous opinion were correct, why call it king's evil; is it not more properly the people's evil? The name appears to me to imply that the disease was first observed amongst royalty; but to remove the stigma which in those days was supposed to result from such a complaint, the name was cunningly transposed, by saying the royal blood, or even a touch would cure it.

* Her medical friends were of opinion that the mesenteric glands were greatly enlarged and diseased. The chyle (which is the nourishment of the blood) passes through those glands.

† She had been taking for some months the whole list of tonics, was kept near the sea, and ordered to eat as much animal food as possible, and drink a glass of port wine, and a little porter, each day.

CASES.

I SHALL now give the reader the result of my own experience (*making any remarks that may occur as I proceed*) in the most summary manner I can devise; not that I think cases ought to be curtailed, if a mere detail can convey instruction; but in most of those instances which I am about to give, I seldom saw the patients oftener than two or three times a week.

CASE I.

I was consulted by the parents of a girl about nine years old, who had been for two years in what may be termed a declining state of health, and about one year previous to my seeing her, she had had the measles; during which she got swellings of the glands of her neck, her health got worse daily, and she soon became much afflicted with scrophula, or king's evil,* which may be termed

* It derives the name of scrophula from pigs, because they are said to be subject to it; the other name from kings, because reported to be curable by the royal blood, or even the royal touch, without the

Bathing continued once a day, the injection used whenever the bowels are not moved without it; improving daily, he now speaks in a very low tone, sixth day since he begun the bath. The tenth day, nothing particular has occurred for the last four days. The bath was continued regularly once daily, all his bad symptoms are gradually disappearing. The stools yet continue to be very slimy and bad, but his strength is improved.—Fifteenth day, the stools for the last two days are mixed with (*apparently*) pure bile. He takes opening medicine when necessary; his principal nourishment consists of simolina and milk, in small quantities, (*repeated often*), and sometimes *beef tea*. Twenty-second day, stools have nearly the natural colour, strength and appetite returning fast.—Thirtieth day, much mended, he now walks about a little, left off the bath, as there are some small pimples on his legs and thighs. His gums do not appear to be affected.

His bath was resumed in ten days, and continued for a fortnight. The stools during that time were more frequent than before, and without the aid of other medicine; sometimes they seemed as if pure bile, at others mixed with *whitish mucous*.

This is now the tenth week; nothing since occurred in the treatment or symptoms worthy of notice. His bowels are in a natural state, his strength improving. The bath has been (*and is to be*) *occasionally* continued, until his strength is quite restored.

the friends expected no assistance, as injections had been used frequently for three days before without any benefit; but to their surprise, in about half an hour after it was thrown up, he passed a great quantity of (*what I suppose*) *diseased bile*, looking like tar, and without *almost any fætor*.

He seemed evidently much relieved by this evacuation. The pulse became more regular, skin natural, and he took his nourishment with very little trouble: from this time it was remarked he never *screamed*, although he would cry sometimes when awoke. The bath was repeated in fourteen hours; and although there was not any discharge from his bowels, his general symptoms seemed better—there was *much less* stupor, and when roused, he looked about, and appeared to notice the persons round him. The injection was again given, and brought off some more of that *tar-like substance*. In ten hours after, the fourth bath was repeated, and he was kept in it for half an hour. In six hours after this his bowels were moved without the aid of an injection, stools very dark, extremely fetid and slimy.

All the symptoms better. His bath was not repeated again for *twenty hours*, lest it should produce too great an effect on the bowels, and thus sink him in his present low state.

He is now so much improved (*seventy-six hours since I first saw him*) that he takes any nourishment offered him, never cries, and although he has not spoken, seems to know those with whom he was most familiar. Pulse 90, and regular.

that mercury had been used occasionally for a year back, and many other of the remedies recommended *in this disease*, but without any good effect. As those from whom I derived the best information I possess, always instructed me to look to the liver and bowels for the origin and cure of dropsy of the brain, I consequently proposed to put the child (*forlorn as the case was*) into the nitro-muriatic bath twice a day, with the hope of its producing a discharge from the bowels. The medical gentleman, and friends of the child, readily agreed, as indeed they were disposed to do whatever was proposed. I put the child sitting in a bath which contained six gallons of water, to which upwards of six ounces of the compound acid were added—the heat of the water was between 96 and 98 degrees, and I kept the child in for twenty minutes. After this, the skin felt more natural, lost the clammy feel, and the pulse was quicker by six beats; these were the only perceptible changes. In ten hours I repeated the bath, and kept him in for half an hour; and after he was put to bed, he fell into an apparently sound sleep, without the moaning which he was lately in the habit of. I roused him from this sleep in two hours, and he swallowed two or three tea-spoonfuls of arrow-root and wine, without any difficulty.* He closed his eyes when the candle was applied, and on the whole appeared more alive.

I ordered him a simple injection, from which

* Previous to this, for two days, a tea-spoonful of arro-wroot would remain in his mouth for *nearly* a minute, and then slip down, as if without his assistance, or power of prevention.

regularly for nearly five weeks, her gums became *very spongy*, and her teeth *ached* a little. At this time the bowels were not so free as before, and I gave a tea-spoonful of lenitive electuary every other day for ten or twelve days. The circumstance of the bowels becoming rather torpid, when the system seemed impregnated with the remedy, induced me to remark, that in this it was not *very dissimilar* to mercury; for I have often observed, that when the system was highly charged with mercury, the bowels were generally constipated.

CASE II.

I was requested to see a child seven years old, the son of a tradesman, who had been for eighteen months under medical care for *Hydrocephalus*, (*dropsy of the brain*.) When I saw him he lay in a state of stupor, and when roused, he screamed, and put his hands towards his head; pulse slow and irregular, the pupils of the eyes seemed dilated, and scarcely contracted on being exposed to the light of a candle; bowels not moved for three days, the water passed involuntarily, the skin was rather hotter than natural, and felt clammy: he could not be made to swallow any medicine for the last two days, and *very little* nourishment.

The medical gentleman in attendance told me

CASE III.

The following is a proof of the necessity of attending to the *liver*, and other digestive organs, in diseases of the skin, which are too often treated as *mere* local affections, when in truth they are only symptoms of some greater mischief.

A gentleman consulted me for an herpetic disease of the skin, with which he was afflicted *upwards* of three years.

He had been during those three years under the care of several medical gentlemen, and had used every remedy that could be thought of; all the *itch* ointments and *washes* were tried, but with very little good effect; mercury was used until salivation was produced, and without material benefit: in short, he went from the regular practitioner to the quack, and back again.

He told me that his general health was pretty good; that he was, for the last twenty years, occasionally annoyed by indigestion, and what is called biliousness; but his *principal* complaint was the eruption, and the INTOLERABLE itching it produced prevented his going into company, and sometimes deprived him of sleep. The eruption was greatest, and most distressing, about the shoulders and back, and sometimes all over the head and face. His tongue was generally furred, stools

unnatural, generally the colour of *lead*, urine deep-coloured and scanty. When I told him that I was of opinion his eruption was produced by disease of his liver, and consequent general derangement of the other digestive organs; he looked with astonishment, and, I believe, gave little credit to my opinion, although he adopted my advice. I directed him to use the nitro-muriatic bath, by sitting in it every night for twenty or thirty minutes. The bath he used contained ten gallons of water, and to this were added *ten ounces* of the compound acid. He continued it about ten days, without any apparent benefit: as the bath did not produce even the slightest prickling sensation, I ordered two ounces more of the acid to each bath, making the quantity twelve ounces to ten gallons, and gave him one drachm (twice a day) of the *oxygenated* muriatic acid, (*CHLORINE*,) in an ounce and half of mint water. These were continued with tolerable regularity for five weeks, (the chlorine increased to two drachms,) and aperient medicine given occasionally.

I always examined the state of the bowels, and found they were during the first three or four weeks extremely bad; there then appeared pure bile in the stools, and in proportion as the healthy action of the liver and bowels were restored, so did the symptoms of his disease disappear.

His bath and *chlorine draughts* were continued OCCASIONALLY for four months, at the expiration of which he said that he had not been so well for twenty years before. The eruption died away

about the ninth week, his appetite improved, and general appearance very much mended.

I recommended him to have recourse to his bath whenever he found his bowels out of order, or any return of his eruption; but this advice was unnecessary, for he would willingly use it for a year, or all his life, rather than *risk* a return of his *itching*. I did not find in this case that the gums became affected, except at one time the gentleman said he felt an odd *sticky* copperish taste in his mouth. It is worthy of remark, and I find it common, that when the nitro-muriatic bath is used for *some* time, the patient complains (*as this gentleman did*) of pain in the region of the liver, even although he had not previously felt any.*

This pain, in my opinion, is produced by the bringing into action this immense organ, (the liver,) which had been perhaps for months, or years, in a state of *torpor*.

CASE IV.

A lady between thirty and forty came under my care about a year and a half ago. She was then considered by all her friends as in nearly the last stage of consumption. I am unable to give any account of her symptoms previously to

* I find Dr. Scott makes nearly a similar observation in a paper written for the *Medico-Chirurgical Transactions*.

the time of my seeing her, as none of the medical gentlemen, by whom she was formerly attended, were then in the habit of visiting her. When I saw her she complained of a most troublesome cough, more particularly on her first getting into bed; she expectorated in the course of the twenty-four hours, about one ounce of *gluey* opaque matter.* Pulse 100, irregular. Bowels obstinately constipated. Sometimes, when strong aperient medicines were given, irregularly purged, stools unnatural; and producing, together with the urine, a sensation of burning. Countenance pallid and very much dejected, eyes dusky, appetite very bad, with nausea after eating or drinking; pain, very severe at times, in the centre of the chest, back of the neck and shoulders, breathing much hurried by the least exertion, strength not so bad as might be expected from her other symptoms, legs swell a good deal through the day, pit on pressure. The swelling disappears at night, total suppression (for a year) of her PERIODICAL DISCHARGES, an almost constant pain of the head, and increased in proportion to the constipated state of the bowels; sleep very much disturbed by coughing, particularly in the early part of the night; spirits so bad at times that she refused seeing her nearest friends, and seemed to think it impossible she could *recover*. I advised her to

* I do not know that what she spit was pus, not having put it to any test of accuracy. Sir Everard Home tells us, that when pus is viewed through a microscope, it seems composed of *globules*, whereas animal mucus appears by the microscope to be made up of flakes.

use the nitro-muriatic bath every night, by placing her legs, to the knees, for fifteen minutes in a tub, which contained about four gallons of water, to which four ounces of the compound acid were added.* After using the bath for six nights as above directed, I could not perceive that any of her symptoms were alleviated, except that she slept three or four hours each night with much more composure, and yet the expectoration was evidently increased.† There was a constipated SCANTY evacuation from the bowels, each day, of a clay colour.

The necessity of producing an action on the liver and bowels, and thus relieving the lungs, became much more obvious, and I consequently determined to try the remedy in a more general way. The large bath was then used every night; it contained twelve gallons of water, to which twelve ounces of the compound acid were added.‡ After three nights (*half an hour each night*) the acid was reduced to nine ounces, as it produced too much prickling of the skin. The first benefit she seemed to derive (*after four nights' use of the large bath*) was an elevation of spirits, and a tranquillity of mind, which were very apparent; besides she (for

* As opening medicine she took once daily three large spoons-full of what is commonly called the *black dose*.

† I now began to fear that the lungs were *too much diseased* to give her any chance of a recovery.

‡ A blanket was placed round her shoulders while in the bath, and she applied the water with a sponge all over her chest and stomach.

the first time) expressed a confidence in the remedy, in consequence of feeling so much *better*.

The evacuations from the bowels appeared greater in quantity, and still worse in quality; they lost that dry clay-coloured appearance, and now looked somewhat like *rotten yeast*; the pains of the head, chest, and shoulders, much abated; stopt her bathing on the seventh night, as the frothy discharges from her bowels were greater, and ordered her to take six grains of the pil. hydrarg. (*blue pill*) at night, and two or three spoons-full, as usual, of the purging mixture next morning. Bowels four times freely opened, fæces very unnatural, and extremely fœtid.

Countenance and general appearance improved, cough not so troublesome, expectoration less, and more free, slept four or five hours **SOUNDLY**. The bath was not resumed for four nights, as she seemed weaker, although all her symptoms were better. In the interim she took (*besides her black dose*) three or four table spoons-full of camomile tea, cold, with six grains of rhubarb, and six of calcined magnesia, twice a day. Bowels moved once, sometimes twice a day, fæces blackish, rather more dry and scanty.

The bath was again used on the 11th night, and continued, together with the tonic medicines, for five nights. The aperient mixture was now not required oftener than twice a week. The bowels became a good deal relaxed, stools various in

colour and *consistence*, but never having any mixture of pure bile.

The bath was only now used every second night. Breathing considerably improved, and the pulse, which was rather above 100, for the last seventeen days, was now down to 92, more full and regular.* Discharges from the bowels more copious, very dark and slimy.

The bath was continued every second night for three weeks, and she took once a week, six, eight, or ten grains of the blue pill at night, and some of the aperient mixture next morning. The secretion from the liver begun to appear somewhat more natural, and her cough and all the bad symptoms were daily disappearing, when by some ill chance she caught cold; a considerable degree of fever ensued, her throat became sore, and in three days was covered with small *ash-coloured* specks, looking like *ulcers*. Her bath was left off, and she used a gargle. The tonic medicine was continued, together with a drachm of tincture of bark, and she took the black dose occasionally. In the course of five or six days her throat got well, and her other symptoms were very much improved.

She now again resumed her bathing twice or

* This gave me more hopes of her recovery, than almost all the other improved symptoms; for I have invariably remarked, that when the liver and bowels seem returning to their healthy state, if the disease of the lungs has gotten to too great a pitch to admit of relief, the pulse retains its FREQUENCY and THRILLING IRREGULARITY; and even although the cough and expectoration sometimes cease altogether, they soon return, and ultimately destroy the patient.

three times a week, but her symptoms were so very much better, that the *foot-bath* only was used for half an hour, and she sponged herself all over for five or ten minutes.

This plan was followed for three months, the blue pill given as an aperient occasionally, and the mild tonics continued. The liver and bowels gradually returned to their natural state, the symptoms of consumption vanished, and her PERIODICAL discharges regularly returned. She was now obliged to go some miles from London, and I recommended her to use the bath, and other medicines occasionally, until her strength was quite restored.

“ In all biliary derangements the rule is never “ to be forgotten, that *there is no security against “ a relapse till the health and strength are fully “ restored, and that till then, some repetitions of “ the remedy are NECESSARY.*”—See Dr. Scott’s observations in the Medico-Chirurgical Transactions.

CASE V.

A woman, aged about forty, who had been for several years cook in a gentleman’s family, consulted me for *epilepsy*, and paralysis of the right leg and thigh. By her own account, the affection of the leg and thigh began three years before she had the convulsions, and she has now been

afflicted with the latter complaint for nine months. She was several times blistered, friction was tried with all the stimulating liniments, but without any benefit.

For the last three months she has lost the power of the leg and thigh, and *drags* it when she attempts to walk. She is also sometimes attacked with a spasmodic affection of the leg, when she *instantly falls*. On a more strict inquiry into her general health, prior to those epileptic attacks, I found that the liver must have been a long time in a very torpid, and perhaps diseased state. She has been (and still is) subject to most obstinate constipation of the bowels, not having any evacuation for perhaps five, six, or seven days, and then only by the constant use of strong purges. The fæces never have the natural appearance, but are more generally *white* or *grey*; her head is often very much pained, but always feels stupid; complains of a dull, but wearing pain in the right *scapula* (shoulder-blade) with a *tingling* down the right arm and side, as if (*what is termed*) *asleep*. There is a good deal of fulness, and tension of the abdomen, with pain (on pressure) of the liver, and (I think) enlargement of that organ.

The *menstrual* evacuations have been for years extremely irregular and scanty, but have totally disappeared for the last ten months. She complains of some difficulty in passing the urine, which has always a deep red colour, eyes and

skin *deeply* tinged with yellow, appetite bad, tongue *foul*, pulse nearly 90, and sluggish.

I directed her to use the nitro-muriatic bath, which was managed in the following manner: to a tub that contained five gallons of water, five ounces of the compound acid were added, and in this she kept her legs for half an hour, or an hour each night; she then dried her legs, and sat in the bath ten or fifteen minutes, by which means and a sponge she applied the remedy all over her body.

After using it in this manner (sometimes *twice* daily) for five or six days, she felt an amendment in her general health, without perceiving any other apparent effects on the system: when continued for about three weeks, the bowels became very easily affected by aperient medicine,* and she could walk without the least fatigue three or four miles, which she had not been able to do for upwards of two years. She has not had any return of the convulsions since the third day of using the bath, and only two attacks from the fourth time of using to the ninth; previous to this period, she had *a fit* almost every night.

The bath and opening pills were continued occasionally for nearly four months; she took *mild tonics* twice or three times daily; left off drinking beer, or porter, and lived principally on

* As aperient medicine, I ordered her ten grains of the compound extract of colocynth every second night, or as occasion might require.

milk and vegetables, with a small quantity of *plain* animal food.

She was frequently, during this period, attacked with vomiting and purging, and got rid, by that means, of a great quantity of bile, which at times appeared *quite green*, and at others looked healthy.*

Whenever she was attacked in the above way, I left off the bath, and gave her mild aperients, and as common drink, balm tea. The liver by degrees returned to its healthy functions, and the bowels of course resumed their natural action. Every bad symptom left her, except the affection of the leg and thigh, which, although so much improved as to enable her to walk five or six miles without any great inconvenience, yet is evidently not restored to its original strength.

CASE VI.

A lady, above forty years of age, who had been for several years residing in a tropical climate, and who had had two or three violent liver and bowel complaints, consulted me, in two years after her return to this country, on account of a *raw*-feeling of the bowels, with almost constant darting pains in the loins, attended, occasionally, with violent

* These attacks seem to me very favourable symptoms, and should not therefore be checked by *chalk*, *opium*, or any astringents, unless the patient's strength is much exhausted.

BEARING DOWN PAIN. Her eyes and skin were tinged yellow, she was subject to VERTIGO, and at times to great tremors, and palpitations of the heart, without being able to assign any causes. The bowels were never moved unless by the aid of aperient medicine; but there was so little disposition to constipation of the bowels, that one tea spoon-full of Cheltenham or Epsom salts, produced, generally, one or two evacuations daily, but those were always whitish, mixed with blood, or having a *jelly-like* appearance. When the latter was the case, the bowels were more fretted and pained, her appetite was capricious, and she was much annoyed by flatulency: at times she experienced considerable difficulty in making water, attended with shooting pains from the loins down the thighs. I suspected from these symptoms, that, together with the deranged state of the liver and bowels, there was an affection of one or both the kidneys. I inquired if there was any appearance of *gravel*, to which I was answered in the negative. I recommended her to use the nitro-muriatic bath, but as she resided some miles from Town, and it was quite impossible for me to see her often, I determined to use it with a still greater degree of caution than I was in the habit of, more particularly as I had learned some gross and dangerous mistakes that had been made respecting the HEAT and strength of the acid bath.

I directed her to add three ounces of the compound acid to four gallons of water, at eighty-six degrees, and keep her legs in this bath, for ten

or fifteen minutes each day, gradually increasing the strength of the bath each time. This plan she adopted for *three nights*, but not finding any change in her complaints, she determined on taking (what every person likes) a little of her own advice, and therefore ordered a bath that contained thirteen gallons of water, at ninety-two degrees, to which fourteen ounces of the compound acid were added; in this she remained for half an hour the first night, and increased the time to an hour.

A fortnight elapsed ere I had any account of her, but then a letter arrived full of panegyric upon her own bravery, in using the acid bath so largely, and contrary to my orders of using only the *leg-bath* for a fortnight; yet she confesses in the latter part of her letter, her family was so alarmed one night as to be just about sending an express to Town for me. It was on the 10th night of using the large bath, when her bowels were so acted upon as to very much frighten her, by the temporary debility it caused. In six hours she had thirteen evacuations, and the stools had the appearance of *rotten jelly*; at this time she remarked a quantity of small gravel to have passed with the urine;* and felt much relieved in the back and thighs.

* This lady most positively declares, that previous to the use of the *acid bath*, she never passed any gravel, and now passes some almost every day. If this opinion of hers be correct,† it shews an effect which the nitro-muriatic acid produces, well worth the most attentive observation.

† I do not mean to say that she would intentionally state any thing incorrectly, but only she might not have been (previous to this) attentive to those symptoms.

After a few days her strength nearly returned, and she felt considerably improved, although she was evidently very much thinner.

I now advised her to continue the large bath, but only twice or three times a week, and to take one tea spoon-full of Epsom salts in an ounce of senna tea occasionally. She persisted in my advice (leaving off, and resuming it according to circumstances) for nearly four months, during which time her gums were frequently spongy, and she had a copperish taste in her mouth. The liver, and consequently the bowels, progressively returned to their natural state. The palpitations of the heart, *raw feel* of the bowels, vertigo, tremors, nervousness, &c. all disappeared; and in the course of six months from the first time of using the acid bath, her health, strength, and spirits were quite restored.

In this case there was not any other remedy to assist the bath, except the infusion of senna and salts, as aperients.

The lady has since returned to a tropical climate, and so thoroughly convinced of the extraordinary good effects of the remedy, that I understand she carried with her a large quantity of the acids, and I gave her instructions for mixing and using them.

After a deliberate consideration of the above case, I am disposed to agree with the lady in thinking, that she never passed any gravel previous to using the nitro-muriatic bath; because (as she herself judiciously remarks) from the time

of passing the gravel, she scarcely experienced any pain, even although some of the gravels were the size of *small pins' heads*; and before, for several months, she felt occasionally (according to her own idea) as if the whole of her inside was dragging out.

CASE VII.

A lady, aged about thirty, who returned eighteen months before from a tropical climate, consulted me for *atrophy*, or general wasting, without any discoverable cause for the malady.*

From herself I learned that she was obliged to quit a hot climate, in consequence of a distressing bowel complaint, which her medical men declared incurable, unless returning to England would produce some favourable change.† Since her arrival in this country, the bowels have become so constipated as to be quite on the other extreme. She tried, without benefit, the Cheltenham and other waters. Mild courses of mercury were attempted at different times, by the medical gentlemen under whose care she was; but so shaken was her

* She was pronounced in consumption, and in the *literal* meaning of the word she might be said to be so; but generally speaking, it means a *disease*, a symptom of which I could not distinguish about her, except the general wasting.

† I presume, from her own account, her disease then was *chronic dysentery*, occasioned by a diseased liver.

constitution, and so low the *vis vitæ*, that this useful remedy (*and then only hope*) was obliged to be abandoned.

At this time she could not with any degree of comfort sit upright for half an hour, from great languor, and sense of weakness of the spine; she was free of pain, except occasional head-aches. The pulse was about 90, feeble and irregular, a short teasing cough without any expectoration; skin unnaturally dry and harsh to the feel; the eyes were nearly surrounded by a purple *rim*, tongue *very clean* in the centre, with a number of small *whitish* blisters on its sides. The colour of the eyes and skin (*dusky yellow*) indicated an absorption of impure bile,* and the appearance of the evacuations from the bowels proved also a diseased state of the liver. The urine contained a great quantity of brick-like sediment; the PERIODICAL DISCHARGES were scanty, bad, and always attended with violent pains; appetite very bad, with great fulness of the stomach after the smallest quantity of food.

She was (what is termed) so extremely nervous, as, at times, to be totally unwilling to see any visiter, and would lie upon her sofa and cry without being able to assign any cause.†

* The different tints of the skin and eyes, should be much more attended to in diseases of the liver; they serve to point out the source of the disease, and aid an experienced person in forming an opinion as to the probability of a cure. A person may be a deep saffron colour, and yet have no actual disease of the liver, nor any change in the quality of the bile; consequently such complaint (however frightful in appearance) is easily removed.

† The powerful influence of biliary diseases upon the mind was strikingly evinced in the case of this lady. She was a woman of

She commenced the use of the external application of the acid, by going into a bath three times a week, that contained fourteen gallons of water, to which ten ounces of acid were first added, and in the course of ten days increased to thirteen ounces. The heat was, generally, from 96° to 100°; and she, at first, remained in it for fifteen minutes, increasing the time each night until she could remain forty or fifty minutes.

As aperients, I occasionally ordered her six or eight grains of the *pil. hydrargyri*, to be taken at night; and if this did not fully answer the purpose, some other mild opening medicine was given the following morning. She took *mild tonics* with small quantities of the *sodæ sub-carbon. exsiccata*. Her diet consisted chiefly of milk and vegetables, with a small quantity (adequate to her appetite) of light animal food. In the forenoon, or at night, she generally had a *raw egg*, beat up with a little warm water and sugar.

During the first six or eight weeks, her amendment was rapid. The pulse became regular, full, and firm; the bowels were daily moved without the aid of aperients, and the stools were, for the last week, tinged with (seemingly) pure bile. The colour of the eyes and skin improved in proportion, the MONTHLY EVACUATIONS increased in

more than common natural understanding, blended with a good education; yet (as she herself observed) she could not at the moment resist the depression and its consequences, although afterwards aware of their folly.

quantity, had the natural appearance, and were attended with little pain. Her appetite and strength improved daily; she was able to walk, or take exercise on horseback, for an hour or two each day without fatigue, and her spirits were daily returning,* when the sudden death of a near and dear relative, with other family misfortunes, put a total stop to her amendment;† indeed they more than retarded her recovery, for in a fortnight she retrograded to nearly the state in which I first saw her. In some time grief *wore itself out*, and she resumed, with more punctuality, her remedies.

The acid bath was used from this period, *on an average*, four times a week for three months; that is, the large bath, *as before described*, twice a week, and the leg-bath, with partial sponging, twice. Her gums became slightly affected, but although the bath was not altogether left off at this time, yet the soreness did not increase. About the sixth week of using the acid bath, she complained of pain in the region of the liver, and at this time the bowels were much more active,

* So palpable were the effects of the acid bath in raising this lady's spirits, that those with whom she was intimate could tell any day whether or not the bath had been used on the preceding night.

† That uneasiness of mind has a powerful influence in producing or increasing derangement of the liver, is a truth that few will be so obstinate as to deny. This cause, with many others, is given by James Curry, M. D. &c. to whom the world is more indebted for *real medical science*, than any, or all the physicians now living. When speaking of "uneasiness of mind," he says, "the influence of which in deranging the function of the liver, is one of the most common, yet one of the most overlooked causes of hepatic disorder, especially in females."

sometimes moved thrice daily. The various colours of the evacuations, proved a most morbid action in the liver.*

Her appetite and digestion progressively improved, as the liver and bowels returned to their natural functions. Her strength was not fully restored, and as it was the height of summer, I advised her going to the sea, and using the tepid, and, afterwards, the cold salt water bath, from which she derived very great benefit.

I afterwards saw this lady, when she had been for three months at the sea, and she was improved beyond my expectation. I stated to her how liable the liver, which has suffered much from disease, is to become *torpid*, or diseased in its action, and hence the necessity of having **TIMELY** recourse to the remedies that were found most serviceable.

CASE VIII.

A gentleman, aged about thirty-four, who had been for many years in India, where he suffered so much by the aggravated forms of diseases, that he was obliged to return to this country for the

* I have always remarked, when the liver has been long inert, that the pain in the side, and activity of the bowels, were favourable symptoms, because they proved the liver to be in action, even although the secretion was diseased.

benefit of climate. In a year after his arrival here, he became a patient of mine. He then complained of general debility and irritability, vertigo, constant head-ache, loss of appetite and flesh, with such a depression of spirits, as to feel at times, disposed to terminate his existence, or thankful to a friend who would do it. His tongue was foul, pulse 100, feeble and irregular; skin tinged rather a brown than yellow, eyes glassy, bowels never moved without the aid of medicine, stools clay-coloured and slimy, sometimes perfectly colourless, urine trifling in quantity, deep-coloured and muddy, ancles swelled through the day, and pit on pressure, abdomen full, and tense;* pains in the shoulders, back and legs, much increased at night, and almost always prevented his sleeping until towards morning; sleep greatly disturbed, and, of course, unrefreshing. I directed him to use the leg-bath, which contained four gallons of water, to which four ounces of the nitro-muriatic acid were added; he continued this each night for upwards of half an hour, sometimes dabbing it with a sponge on his thighs, and all over his body; he also took mild tonics, combined with CHLORINE, (*oxygenated muriatic acid*;) as an aperient, he took two or three spoonsfull of the black dose every third or fourth day.

In one week his mind was so tranquil, his

* I examined as minutely as possible, but could not perceive any flowing of water in the abdomen. He says, since he got so much weaker, within the last year, that he has not felt any pain in the region of the liver.

general feelings so improved, that all the *theoretic* reasoning against the remedy, could not have induced him to forego it.

Such is the influence of stubborn facts. He continued to use the bath, in the manner described, for nearly four months,* taking however the opening medicine requisite. During this period he was frequently attacked with a purging of (*in appearance*) pure bile; at other times the evacuations were quite *frothy* mucous; he now scarcely ever required the use of opening medicine, indeed the bowels were preternaturally free, but as his strength improved daily, I did not attempt to *check* them, more particularly as the discharges were far from natural. He sleeps the whole night soundly, his spirits and appetite very good, never complains of vertigo, or nocturnal pains, head-aches and NERVOUSNESS quite gone, pulse 90, full and regular, tongue natural, swellings of the legs nearly gone, tension of the abdomen quite removed, urine much increased in quantity, but continues yet (*occasionally*) very muddy.† His gums became very spongy, and sore to the touch; he also complained of a disagreeable taste in his mouth, which he could not compare to any thing he knew of.

* He was occasionally obliged to leave it off for two or three days, in consequence of small pimples, which were brought on either by making the bath too strong, or using friction with the sponge.

† He lately passed with the urine some small *gravel*, which gave him a great deal of pain and irritation of the urethra and bladder previous to its coming away.

The bath and chlorine were left off, and in the course of a week the gums were perfectly well, his complexion natural and healthy; in short, all his bad symptoms were vanished, and although he considered himself as quite well, I was by no means of his opinion—because the liver did not shew a GENERAL healthy action; for even although the bowels were moved twice, sometimes thrice daily, yet the discharges were (at times) mixed with a very impure matter. I should have mentioned that during the use of the acid bath, he complained, for a few weeks, of pain in the region of the liver, which he had not felt since his arrival in this country. In about eight months after the remedies were left off, he returned to me, complaining of a great many of his old symptoms, and which I found, *on examination*, were (*in all probability*) brought on by his liver becoming again extremely torpid.

I again made him commence the nitro-muriatic bath, in the usual manner, and also gave him a draught (twice daily) containing from one to two drachms of chlorine; these were continued for nearly six weeks, when he again complained of *sore gums*. The bowels became (by the occasional assistance of aperients) regular, the discharges natural, and in a few months he was perfectly restored to his usual health and strength.

C A S E IX.

A man, aged fifty-nine, came under my care on account of *anasarca*,* of about four months' standing. His legs and thighs were very much swelled, and retained the impression of the finger. The legs, for six weeks previous to my seeing him, were violently attacked with ERYSIPELAS. There was fulness and tension of the abdomen, face and hands doughy, head confused, without actual pain. The pulse was 105, feeble, with an intermission at every fifteenth beat. He complained of extremely difficult (or rather hurried) respiration; so much so, as to prevent his walking, even slowly, one hundred yards, without being obliged to stop and try to catch breath. He had a short dry cough, most annoying during the forepart of the night; and complained much of sluggishness and general debility. He could lie best upon the right side, and when resting on his back, or left side, felt an obtuse pain in the region of the liver. His tongue was yellow, and wanted moisture; appetite for eating, bad; thirst great; skin dry, and above the natural heat; bowels torpid, the evacuations trifling, and generally of a grey colour, mixed with blood; urine scanty, with difficulty of passing

* General dropsy.

it; dull pain in the loins and shoulders;* sleep much disturbed by frightful dreams; great anxiety and alarm at his symptoms.

To prevent the disease increasing upon the lungs, I placed a large issue in the side, (just over the liver;) I then commenced the use of the nitro-muriatic acid, by putting him into a bath, which contained about sixteen gallons of water,† to which sixteen ounces of the compound acid were added; this he used for thirty (sometimes fifty) minutes every night, for *seven or eight weeks*, occasionally omitting it for a night or two, whenever it produced irritation, or any unusual symptoms.

He also took a wine glass full of simple bitters two or three times daily, and as aperients he took (when necessary) eight or ten grains of the *extract. colocynth. compos.* In less than a fortnight, all his symptoms were very considerably alleviated; indeed, the good effects of the remedies were perceptible in four days. It might be said, that he progressively mended, his breathing improved, pulse became less frequent, and not any intermission, sleep sounder and more refreshing, feel of the skin moist and natural, abdomen softer, bowels moved two or three times daily,‡ stools variable in colour, but, until the sixth or seventh week,

* He was for years supposed to labour under *atonic* gout.

† This quantity did not reach above his hips, as he was naturally large, and his size increased by the dropsy.

‡ The bowels were sometimes moved six or eight times in one day: whenever this took place, the bath was left off, and mild aperients given and repeated according to the appearance of the evacuations, and strength of the patient.

without any appearance of healthy bile, countenance became clearer and less bloated.

At the end of the eighth week he was so much recovered as to be able to attend his business. The dropsical symptoms were nearly removed; the *erysipelas* died away; his bowels were very much relaxed, and the evacuations had a large quantity of *good looking* bile mixed in them. The urine increased much in quantity, and passed freely;* his appetite and strength were daily improving; the eyes and skin resumed their natural appearance.

As the origin of his complaints must have been of old standing, I recommended him to continue the remedies (*but less frequently*) for several months, as by such perseverance only could he hope to eradicate the source of his maladies, or be protected from a sudden relapse.

He adhered, I believe, pretty regularly to the advice; and I have had opportunities of seeing him occasionally since my attendance, (now upwards of seventeen months,) and his strength and health are certainly as good as can be expected for a man of his age (whose constitution has experienced such a shake) to enjoy.

* About this time, (eighth week,) he passed a good deal of *small gravel*, and said that he was tormented with this complaint for several years; but, since its first attack, has never been able to pass the water so freely as at present.

C A S E X.

A woman, aged twenty-eight, who had been for six or seven years in a declining state of health, consulted me.* Her breathing was very much hurried, particularly on the slightest motion; she had a hollow-sounding cough, with a trifling expectoration of frothy mucous; pulse, when she remained quiet, not above 100, but at times she became (what is termed) so nervous, that the pulse would rise to 120, and upwards; pain in the region of the liver, much increased by cough and pressure; bowels constipated, never moved without medicine; stools various in colour, but most generally black, like *tar*, and very slimy; tongue foul, yellow; eyes glassy and dull; countenance pallid and dejected; *menstrual discharges* totally suppressed, for upwards of fifteen months; violent *leucorrhæa*; the urine produced so much irritation of the bladder, with a burning sensation of the urethra, as to prevent its retention above three hours; complained of aching pains of the left arm, with pains of the knees and legs, and sometimes violent cramps of the legs; she had been for years subject to PILES.

* Her friends thought that she had genuine consumption, and told me that the medical gentleman under whose care she had been, was of the same opinion, and therefore did not lately attempt to prescribe any thing of consequence.

She commenced the nitro-muriatic acid by putting her legs, to the knees, in a bath, which contained about four gallons of water, to which four ounces of the acid were added; she occasionally applied it all over her body, by means of a sponge, independent of the time (*generally from twenty to forty minutes*) she kept her legs in the bath. As a tonic, she took a wine glass full of infusion of balm and camomile, twice daily; and, as an aperient, an ounce or two of infusion of senna, with a tea-spoonful of salts.

Her situation in life (*fortunately for herself*) did not admit of any great variety in diet. I desired her to take a large quantity of milk in her tea, morning and evening; at dinner chiefly vegetables, with a little fowl, or some light animal food.

She continued her bath, &c. &c. regularly for five or six weeks, and during this period I was not able to see her above three or four times.* The principal changes which took place during these last five weeks were, the discharges from the bowels became extremely purulent, and at times mixed with clotted blood; the cough less troublesome; pulse lowered to 90, (*full and regular*;) pain in the region of the liver much abated;† spirits and general appearance greatly improved; appetite and strength returning; leucorrhœa very much diminished.

After six weeks' pretty regular and general use

* She resided upwards of thirty miles from town, but I corresponded with an intelligent friend of hers.

† Not felt, unless when pressure was made upon the side.

of the bath, she complained of a clammy feel in the mouth; the gums were evidently spongy, and the quantity of saliva round the teeth much increased. The bath was then consequently omitted, but resumed after six or seven days, as the soreness of the gums disappeared.

The strength of the bath was never increased or diminished; nor did the quantity first ordered produce more than a very slight prickling, without any pimples, or unpleasant irritation of the skin.

She continued to use the bath, together with the tonics, as already described, for nearly two months from this time, including altogether a period of *about thirteen weeks*. The secretion from the liver did not appear healthy, until she had used her bath for nearly nine weeks; but although the daily inspection of the evacuations from the bowels evinced the liver to be in a highly diseased action, yet her general health daily improved; her cough and expectoration quite disappeared; there was little, if any, appearance of the *fluor albus*; and about the tenth week, the menstrual discharges, which, as I before stated, had been suppressed for upwards of fifteen months, returned.

It is now nearly one year and a half since she was under my care, and I am informed that her health is better than it was for eight years previous. She had about seven years ago a miscarriage, since when she has not been pregnant, and her health got gradually worse, but I understand she is now breeding.

C A S E XI.

A woman, aged forty-five, consulted me on account of an ulcer, which nearly covered one of her legs; it began about eight years before, immediately after her recovery from a violent typhus fever.

She informed me, that very many local applications were tried; but the only one from which she derived benefit, was a tight roller applied from the toes to the knee, and by this alone was she enabled to walk about. The leg became occasionally so inflamed as to prevent the possibility of wearing the bandage; and this circumstance generally occurred periodically, and about the time the menstrual evacuations should have appeared, which had been partially suppressed since the ulcer became very bad, (*six years*,) and for the last two years there was not any appearance of them.

Her bowels were extremely irregular, sometimes constipated, at other times so relaxed as to induce her to take astringents;* her tongue was foul, eyes yellow, skin dry; she complained much of eructations; with PYROSIS, (*water brash*,) and several other symptoms, showing a very deranged state of the digestive organs.

* She remarked that whenever the bowel complaint came on, the leg was always better.

To remedy these complaints, and thereby remove, if not the sole cause of the *ulcer*, certainly what tended to very much aggravate it, I advised her to use the nitro-muriatic bath to the sound leg, and apply it with a sponge to her arms and body, but not to attempt applying it to the ulcers, unless very much diluted.

She used the leg-bath every night, containing about three gallons of water, with an ounce of the compound acid to each gallon. She also took six or eight grains of rhubarb, with a little magnesia, in balm tea, twice daily.

In the course of a fortnight from the time of commencing the bath, her health was very much improved, and the ulcer looked considerably better. She applied the acid to the unsound leg, about half as strong as that which she used to the other leg, and gradually increased the strength, until she could put both legs in the same bath.

In the course of seven or nine weeks' use of the remedy, (*occasionally omitting it, in consequence of her gums becoming affected,*) her health improved wonderfully, the symptoms of indigestion vanished, her bowels became regular, the *menstrual discharges* returned, and in proportion to the amendment in her health, so did the ulcer amend, until no symptom whatever of it remained, except a discolouring of the skin, which is likely to continue during life. It is now a year and a quarter since the ulcer healed, and it has never since broken. The muscles and integuments of that leg are as firm as the other.

This woman (however anxious to have her leg cured) was extremely alarmed at the idea of stopping the discharge from the ulcer, in consequence of the vulgar opinion, that if the discharge was stopped, she would be likely to get an attack of APOPLEXY, or some other disease.

To obstruct any discharge connected and kept up by constitutional disease, without removing its source, must be attended with the most dangerous consequences; because we intercept the effort which Nature, perhaps, is making to relieve herself, without affording her any assistance in lieu.

CASE XII.

I was called in to visit a child of four months old, who had been during the three first months perfectly healthy, but in the fourth month began to decline. As the mother lost two children about the same age with similar symptoms,* she was naturally very much alarmed.

When I saw the child, she had a bowel complaint, which commenced about three weeks before; the bowels were moved six or seven times daily, and the discharges were variable in quantity and appearance, (never the natural colour,) some-

* They were said to have died of *hydrocephalus* (dropsy of the brain.)

times quite green, at others black and slimy, but most generally whitish, with frothy mucous.

The sleep was greatly disturbed, grinding of the teeth, and violent screaming. There was nothing peculiar in the pulse; it might be said to be slower than natural, although there was preternatural heat and dryness of the skin. The eyes quite lost their vivacity, and in the ordinary light seemed fixed; but when exposed to a stronger light, the pupils contracted a little. There was an almost constant irritability of the stomach, and a rejection of the milk; *the child was suckled by its mother.*

I put this child into the nitro-muriatic bath every morning and evening, for eight or ten minutes each time, and continued this for three weeks; the bath contained three gallons of water, and to these were added three ounces of the compound acid.

I requested the mother not to allow the child more than half the usual quantity of milk, and to give arrow root two or three times a day, in lieu.

After the third day of using the bath, the child slept well; not quite natural, but without that screaming, or grinding of the teeth. The skin looked much more clear, the eyes more lively, and the bowels were not moved so frequently, yet the discharges were very much greater in quantity, and looked a bright green.

The remedy (as I before mentioned) was regularly gone on with for three weeks, and about this time the secretions from the liver and bowels were seemingly so healthy, the child so fast resuming its

strength, that I advised the mother to omit the bath, and keep the bowels very open with any of the aperients given to children. The child did very well, and the bath was never resumed.

CASE XIII.

A Gentleman, who had been for many years in India, and suffered much by liver disease, and its consequences, consulted me, in about a year after his arrival in this country. When I saw him, he was of a *deep copper colour*, greatly emaciated, pulse fluttering between 100 and 120, a constant short dry cough; scarce any appetite, the feet and ankles were swelled; and he felt so weak, as to drag his legs, rather than walk; his bowels were constipated, and the evacuations scanty clay-coloured slime; urine trifling, and loaded with mucous. There was not any pain in the region of the liver, although upon a close examination, I thought I perceived a part of that organ indurated; I also felt two or three small tumours in the abdomen, seemingly *lymphatic glands*, indurated. I recommended him to immediately commence the nitro-muriatic bath; but as he had medical friends in town, he put himself under their care. In about two months, he returned to me, and the account he gave of himself was rather curious, and not without interest, inasmuch as the acid bath was concerned. His story was as follows: "I went to those gentlemen, whom I mentioned, and on consultation, they were of opinion, " that in consequence of the affection of my lungs,

“ and frequency of the pulse, (then 120) together with the emaciation and general debility,
 “ the use of the nitro-muriatic bath would be attended with the most dangerous results, and
 “ doubtless aggravate the pulmonary symptoms.
 “ After a month’s use of other remedies, which I
 “ had repeatedly tried before, I told them that it
 “ was quite evident I was daily losing ground; that
 “ I came to town for the express purpose of giving
 “ the acid bath (as my only hope) a fair trial, and
 “ that I was determined to use it. Finding me
 “ thus obstinate, they agreed to try it, and I went
 “ every night into a bath with ten gallons of water
 “ (at 90°) which was made of the strength recommended by you.* On the morning after my
 “ first bath, they were rather surprised to find I
 “ slept better than usual, and that the pulse was
 “ diminished in frequency, (by four beats;) after six
 “ nights’ use of the bath, my cough was much less
 “ troublesome, and to their utter astonishment, the
 “ pulse was only 90, and nearly regular; my skin
 “ got much more clear, (or *clean rather*;) I used
 “ the bath about twenty times; my bowels are now
 “ moved two or three times daily, without any other
 “ medicine; my appetite and strength are much
 “ improved; in short, I feel to be quite another
 “ being.” The above account, undisguised and
 unvarnished, is infinitely preferable to a thousand
 theoretic opinions respecting this remedy. The
 affection of his lungs was occasioned by disease of

* I advised him to begin with the usual quantity, namely, an ounce
 of the compound acid to each gallon of water.

the *abdominal viscera*, particularly the liver; and as soon as these were partially relieved, the pulmonary symptoms abated.

He continued from this period under my care, for about a month; I went on with the bath, but in a more partial manner,* and gave him a drachm of chlorine, in an ounce and half of cinnamon water, twice daily.

His strength, appetite, and spirits, improved every day; the colour of his skin and eyes was much better; the liver was secreting pure looking bile, although the evacuations were still very bad. He was obliged to go into the country; from whence he has written to me, saying, that after he got fixed, he would again resume his bathing, and chlorine; he felt himself then improving in every respect. He has not lately written to me, but I presume he is going on well, or I should have heard.

CASE XIV.

The two following cases I attended at Guy's Hospital.† The first and most worthy of observa-

* He used the leg bath, and sponging, with three gallons of water, and three ounces of the compound acid.

† My attendance at Guy's was occasioned by having the honour of meeting Mr. Astley Cooper, in private practice, upon a case wherein I proposed to use the nitro-muriatic bath, (having frequently seen it of so much service in similar cases;) he objected, on the fairest grounds possible, from his never having seen it tried, and therefore could not sanction a remedy in *private practice*, with the effects of which he was totally unacquainted; but offered me six patients at Guy's Hospital, on whom I might try it.

I readily accepted the liberal proposal; for however confident in my own mind of the powerful influence of this remedy, yet I was glad of the

tion, was a young woman aged about twenty-two, who had been admitted into the hospital two years and a quarter before. There were not any memorandums kept at the hospital relative to her case; but the account she gave me of herself, was pretty much as follows.

About three years before, she got a small ulcer near to the anus, which was extremely painful, and disposed to spread; she was under medical care for eight or nine months, previous to her admittance into Guy's, but the ulcer extending, and still worse in appearance, they recommended her to the hospital. When I took this patient under my care, she was twenty-seven months in the hospital, mostly in bed. The whole of the nates, and part of the thighs were covered with a *horribly fetid foul ulcer* or *ulcers*, the edges of which were hard and ragged; parts turned outwards, and others inwards. The surface was unequal; and the different excavations discharged occasionally a dark-coloured ichorous matter, which excoriated the whole, and produced pain and irritation intolerable;* there was, at times, a considerable discharge of blood from the ulcers, with a burning feel; it appeared to me *more like a cancer*, in the advanced stage, than any

opportunity, and long anxious to prove its effects under a gentleman of Mr. Cooper's great information, and still greater experience.

All the patients then under the care of Mr. Cooper (except the two mentioned) were convalescents, or cases wherein the acid bath was *inadmissible*; consequently he was unable to perform his promise of giving me six.

* For several months previous to my seeing her, she was in the habit of taking large doses of opium each night, besides potions with laudanum through the day. When it was ordered that the opium should be altogether left off, she cried, and hoped we would not deprive her of the only comfort she now had.

other sore I had ever seen. With respect to the constitutional symptoms, her bowels were very irregular; the discharges from them were (since her first illness, by her own account) in every respect variable, but never natural; there was an obtuse pain in the region of the liver; this she remembered to have had a long time, but thought it not of consequence. The pulse was small, frequent and feeble; tongue rather clean than otherwise; countenance pale and dejected; the menstrual discharges had not appeared for more than two years; the skin was parched; but she was then frequently attacked with colliquative sweats; was much emaciated, and had many symptoms of *hectic fever*.*

She commenced the nitro-muriatic bath (every other remedy having been discontinued) by placing her legs in a small tub, which contained about two gallons of water, agreeably warm, to which were added two ounces of the compound acid.†

On the first night, she was suffering so much in consequence of the want of her opium, and her complaints were so piteous, that the dresser, when going his last round, was induced to give her a dose to quiet her, so that the other patients might sleep. After this first night, no opium was

* It is almost needless to remark, that during those three years she was ailing, every remedy that could be devised was tried. The opinions respecting what her disease was, were various; but I understood the majority by whom it was examined, thought it venereal. So bad an opinion had Mr. A. Cooper of this case, and so little idea of any remedy being of service, that he said to me, before his pupils, "If you cure this poor girl, you deserve a crown, and not a silver crown."

† As the pain of the ulcer was so distressing, and she much debilitated, I made her use the bath twice daily, and only 10 or 15 minutes each time.

given her, nor any other medicine, except a wine glass^r full of camomile tea, cold, twice daily; and a small quantity, when necessary, of the common aperient medicine of the hospital.

On the second night of using the bath, she was much more tranquil, although she did not sleep.

On the third night, she thought she slept about an hour; but was the whole night more quiet and happy than she had felt for two years.

The fourth night she slept four or five hours, and was so refreshed and delighted to sleep without opium, that had I asked her to use the bath *ten times* daily, she would have gladly consented. The bowels on the third and fourth days, were disposed to be more active; I ordered her an ounce of the common aperient medicine of the hospital. The colour of the evacuations was blackish green, mixed with a slimy curdled matter. The bath was continued; and she applied it, in a very diluted state, to the ulcer, by means of lint.

After a week's use of the acid bath, I did not find it necessary to give her any aperients; the bowels were rather too much relaxed, but as the discharges were extremely purulent, I thought it better to support her by milk diet, and other nourishing food, than to stop the action of the bowels.

The bath was left off at this time, and resumed after two days.

As she continued to use the bath, her appearance and symptoms daily improved; the pulse became full and firm, 90; she slept well, her countenance brightened, appetite returned, and the ulcer began

to heal. After five weeks' use of the bath, her gums became very spongy, with an increase of saliva. The bath was then omitted for about five days; and not until this period, did I observe any appearance of healthy bile in the evacuations.

She was now able to walk about, and really seemed in a pleasing state of intoxication at the idea of her rapid recovery and release.

Her bathing was again resumed, and continued *once daily*, for nine or ten weeks. During this time, she got fat and healthy, the bowels became natural, the menstrual discharges returned, and the ulcer looked well, and continued to heal. At the expiration of about four months, she was so stout and healthy (although a part of the ulcer was not then healed) that it was deemed imprudent and contrary to rule, to continue her any longer upon the establishment.

She was discharged without my knowledge, and in consequence I totally lost sight of her; which prevented my knowing whether or not the ulcer had perfectly healed.

The restoration of this poor girl, after three years' painful suffering, is, in my opinion, sufficient to prove, to the most sceptical, that the remedy is well worth most serious attention. At the time I attended this girl, I had not the most distant idea of publishing the case, and therefore noted only the more prominent of her symptoms; and omitted many that might now be worth mentioning.*

* Since writing the above, I have been informed, that this poor girl, soon after leaving the hospital, was in so good health, as to get into service.

C A S E X V.

The second case which I attended at Guy's, was that of a young man, who had a large foul ulcer in the throat, with a scurfy state of the skin, and two or three nodes upon his shins.*

His general health was very much impaired, countenance dejected, bowels constipated, pulse frequent and small, scarce any appetite; great emaciation; restless nights, and wandering pains in his bones. He commenced the use of the nitro-muriatic bath, by putting his legs in a tub, which contained about three gallons of warm water, to which were added three ounces of the compound acid; in this bath he generally kept his legs, each night, for about twenty minutes, or half an hour; and during the time, kept his thighs moistened with a sponge, and occasionally applied it all over his body.

After using the bath for eight or nine days, the ulcer in his throat put on a healing appearance; his health daily improved, the nodes upon his shins gradually disappeared, the skin got clean; and in the course of a month or five weeks, he was *perfectly recovered*, and I believe discharged from the hospital.

When he commenced the acid bath, his gums, and the whole mouth, were spongy and filthy, by the *mercurial fumigations*; but as the ulcer healed, and his health improved, those disagreeable symptoms

* He was treated for lues venerea (and I believe he had that disease;) kept several weeks under the influence of mercury; and mercurial fumigations used to the ulcer in his throat, but without any benefit.

vanished; and the continuance of the acid bath did not occasion salivation or sponginess of the gums.

This is one case, amongst the many I have seen, where the constitution was broken by the combined poisons of *lues* and *mercury*, and yet the acid bath did not increase the bad effects of the mercury, but perfectly restored, or powerfully assisted to restore the constitution.

CASE XVI.

Although the following case terminated fatally, yet in it will be found a striking proof of the powerful influence of the nitro-muriatic bath; and as the case is important, (inasmuch as the patient was a gentleman in high life, and various opinions given, respecting the propriety of using a new remedy with which the profession were, still less than now, unacquainted,) I think it due to the remedy and myself, to give a more *detailed* account of this gentleman's case, without mentioning any names, than otherwise might be deemed necessary. He was aged about thirty or thirty-two; whom the world denominated in his college days, a *gay, good fellow*; but this gaiety, or rather folly, obliged him to undergo long and severe courses of mercury; which, together with his complaints, completely undermined his constitution; his health declined, and he became dropsical: he was then in the country, under the care of several medical men. Every medicine that was found of service in similar complaints was tried with him, but without

the least benefit; his dropsy increased so rapidly, that himself and his friends were very much alarmed; and in this state he came to town, where I first saw him. I was called to meet a physician, in consultation upon his case. He then complained of pain in the head, difficulty of breathing, a short dry cough, with a good deal of symptomatic fever; his face was doughy, tongue foul, eyes heavy and yellow, abdomen enlarged and tense; legs swelled, retaining (for a time) the impression of the finger; appetite bad, bowels costive, urine very scanty, *great languor and debility*. I proposed to use the nitro-muriatic bath as an auxiliary to whatever he might propose, at the same time observing, that every one of the old remedies had been tried without benefit,* and we were the more authorized (as his situation was alarming) to adopt means which might assist to relieve him. My colleague was of a different opinion, and recommended aperients occasionally, and draughts two or three times daily, consisting chiefly of DIGITALIS. In three or four days the patient was not better, and became rather impatient; two others (medical gentlemen) were called in, and the three agreed to continue the digitalis, together with *muriate of mercury*, and other remedies, for ten days, and if, within that time, the patient was not considerably better, they would try the acid bath, with any other remedy I chose to propose. Three weeks elapsed, when I was again desired to meet these gentlemen in consultation, (if consultation it could

* He showed me all his former prescriptions.

be called;) the two seniors requested I would take the patient under my care, for they could not be of any service to him, and should therefore withdraw; the third gentleman remained with me in attendance.* At this period the dropsical symptoms were alarmingly increased;† his bowels were costive, and strong purges had no effect, except that of producing a small slimy evacuation of a *black lead* colour, with a good deal of blood: he passed about an ounce and a half of urine in twenty-four hours, and that with difficulty; his breathing was hurried and oppressed. We commenced by putting him into a bath that contained twelve gallons of water, to which were added, twelve ounces of the compound acid.‡ He slept rather better the first and second nights, but no other benefit seemed to have been derived; after the third night, the bowels were more freely moved, and the quantity of urine was increased. During the first week or fortnight, we gave him opening medicine occasionally, but after this, he scarce ever required any; the bowels were moved three or four times daily, and the urine increased very considerably. The colour of the evacuations from his bowels was various, not an appearance of pure bile, but all

* Many of my friends censured me for taking a patient under such circumstances, particularly when my advice was neglected three weeks before, and risking the fame of a remedy which was not then established; yet what could I do? I was under great obligations to his family, and independently of these, ought we to abandon a man to his fate whilst a gleam of hope remains, because indeed the old practice fails?

† The scrotum was so immensely enlarged as to oblige us to puncture it.

‡ The water reached a little above the hips, and the abdomen was sponged during the time he remained in it, about twenty minutes the first night, and gradually increased to thirty or thirty-five minutes.

evinced a most diseased state of the liver, and other digestive organs.* The bath was continued regularly for a fortnight, and then left off a few days, on account of the very active state of his bowels, and pimples upon his legs; the discharges from his bowels were now copious, and had (most generally) the appearance of *yeast*, and were extremely offensive; sometimes he passed by the bowels, a good deal of *clotted* blood: and the water had at times a most pungent odour, like that of ammonia.

The bath was resumed, and used every other night; (sometimes every night (just as he happened to feel at the time.) In the course of three weeks, his dropsy was much diminished, and all his symptoms so improved, that his friends had not the least doubt of his recovery.†

His gums were so very spongy, and his bowels so active, that the bath was left off, and mild tonics given him two or three times daily. The discharges from his bowels changed very much, they had an exceedingly diseased appearance, although occasionally intermixed with bile of a bright orange colour. Whilst his bowels were in this very active state, he frequently passed a large quantity of fleshy lumps, having the appearance of rotten lungs. In a few days after, the stools had a very considerable quantity of bile mixed with them, which had a deep yellow colour. No patient (compa-

* We placed a large issue over the *right lobe* of the liver.

† His amendment was for a time so rapid, and all his symptoms so promising, that the gentleman who attended with me, as well as myself, was almost certain he would recover, although we gave no positive opinion, except in our private conversations.

ratively speaking) could have been going on more favourably; his dropsical symptoms were rapidly disappearing, and every thing seemed to promise a happy termination, when he caught a cold, which produced inflammation of his throat, and soon communicated to the lungs. From this period he became restless, feverish, his issue got dry, and he daily *lost ground*, until the termination of his earthly career.

It is extraordinary (but in my mind not less true) that patients in the higher circles of life, have almost always a worse chance of recovery than those of the other classes. I can only account for it in the following manner: first, that the medical men become too much alarmed or too anxious, by the great responsibility; and order at the different visits, a farrago of medicine, one counteracting the other. Secondly, the friends of the invalids, in their great and natural anxiety, rack their brains for *bills of fare* each day, and cram the patients, fully believing, that this enormous quantity of trash which is pushed into the stomach, must aid in the recovery of the person, when in truth it powerfully assists to kill him.

CASE XVII.

I was called in consultation on the case of an officer, (in the Hon. East India Company's maritime service,) who had returned a short time before from India. He complained of great languor, loss of appetite, painful depression of spirits, with pains all day in the left hip and thigh and

right shoulder, which gradually increased towards night, when they became excruciating, totally depriving him of his rest until morning, at which time they abated, and he got a little unrefreshing sleep.* In walking, he dragged his left leg, and the thigh was evidently wasted; his tongue was foul, eyes dull, pulse sluggish and irregular; teasing cough, skin dry, urine deep-coloured, with a lateritious sediment. On examination, he complained of an obtuse pain in the left lobe of the liver, immediately below (what is vulgarly termed) the pit of the stomach; his bowels were moved slightly by medicine every other day, and the evacuations had the natural appearance. I told the gentleman in attendance I was of opinion a part of the patient's liver was diseased, and from thence perhaps originated all his other symptoms, general debility, emaciation, &c. &c.

The gentleman confessed he knew not from what cause the man was sinking, but did not think the liver diseased, as the evacuations from the bowels had the natural appearance. To this objection I observed, that doubtless we were often mistaken in that respect, because I fully believed a considerable part of that immense organ (the liver) might be in an apparently healthy action, evinced by the colour of the stools, whilst the

* I learned from the surgeon of the ship, (a clever young man,) that previous to his leaving this country, eighteen months before, he was subject to pains of the hip and shoulder, which were treated as rhenumatism. In China he underwent a course of mercury, for a chronic diseased liver; and whilst under the influence of the mercury, never felt any pain; he was then considered free from disease, yet he did not rally, and was so much debilitated as to be unfit for duty the whole voyage homeward.

remaining portion was perfectly torpid, and gradually destroying the constitution. With these ideas, and fearing the effects of mercury upon a constitution already broken down, he agreed with me in using the nitro-muriatic bath. We commenced by putting the patient into a bath that contained twenty gallons of water, to which we added about twelve ounces of the compound acid, and gradually increased the quantity of acid each night, until he had nearly an ounce to the gallon.

He remained in the bath from fifteen to twenty minutes, sometimes thirty or forty. On the third and fourth nights of using his bath, the pains of his hip and thigh, which before were excruciating, had so much abated as to leave him quiet; and although he got little or any sleep, yet he felt more refreshed and alive the following days than he had for months before. On the sixth night the whole nervous system (which previous to this was in such a state of irritability) was so tranquil, that he slept soundly for five hours.*

His bath was continued every night for nearly a month, during which he was so much relieved, in every respect, that nothing could have dissuaded him from its use. The bowels were now more active, and the discharges had a pale yellowish appearance.

After two months' regular use of the bath, he was obliged to leave it off for ten days, in consequence of his gums being very spongy, and feeling otherwise much affected by the remedy, or its

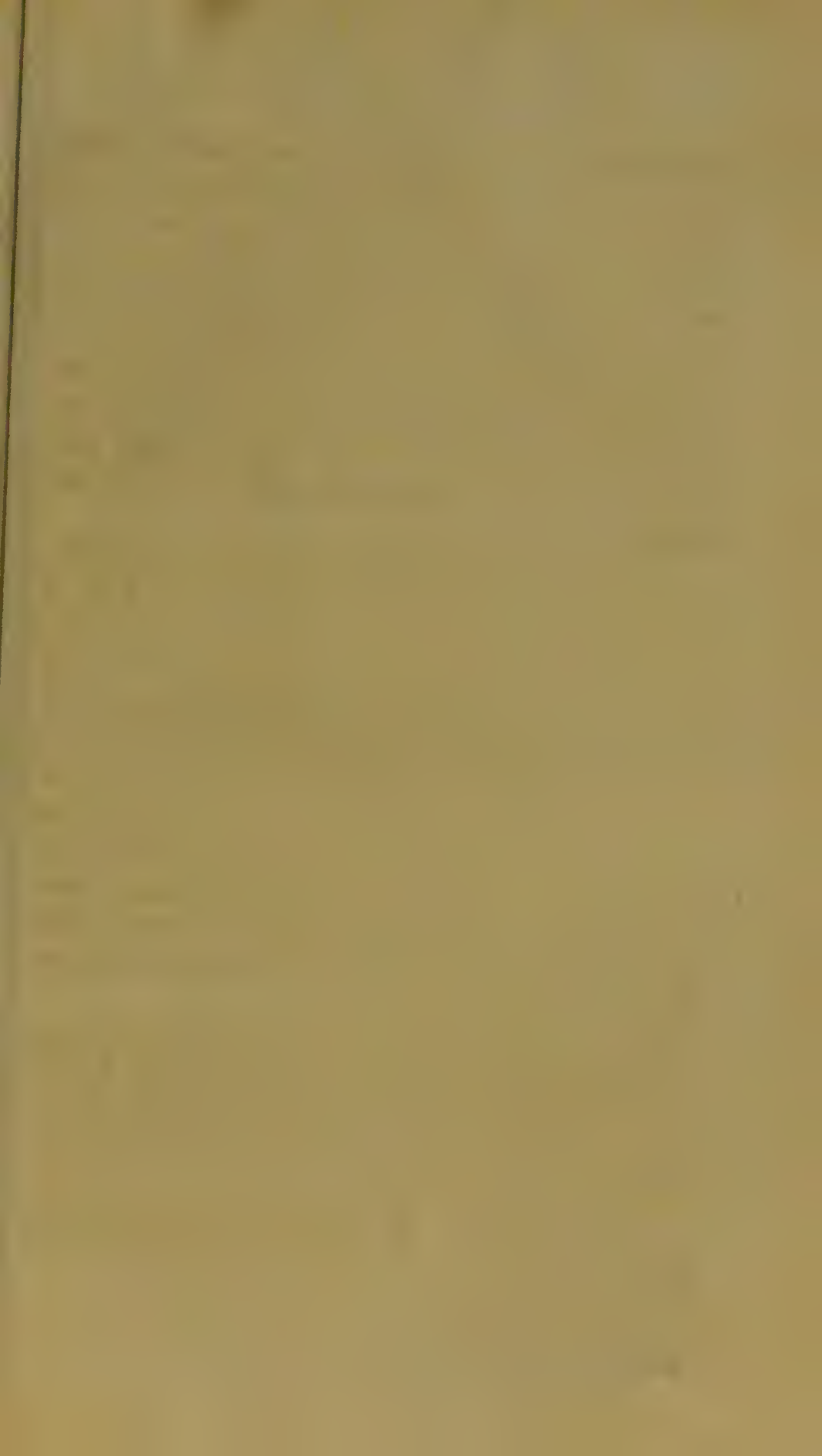
* The only medicine he took was a little vegetable tea (cold) twice daily; and if his bowels required aperients, he was ordered some of the lenitive electuary.

consequences.* The evacuations from his bowels were now in a very unnatural and diseased state; and he complained of a burning sensation at the *rectum*, attended with *tenesmus*. We purged him with calomel and salts occasionally, which brought off an immense quantity of highly diseased *matter*,† and the urine increased considerably. After these discharges, the *tenesmus* and burning feel of the *rectum* were relieved, and he felt in every way better, much more happy, and void of all his late alarms.

He again resumed his bathing, but less frequently, (every other night,) and in the course of four or five weeks, his eyes, and the whole countenance, brightened, his appetite and strength were fast returning, the evacuations were copious and perfectly natural, and he appeared free from disease; yet as his strength was not quite restored, I advised him to go into the country, where he took exercise on horseback, lived regularly, and took mild tonics, I think, generally, *decoctum sarsaparilla compositum*. In a short time I had the pleasure of seeing him quite stout, and going to join his ship, bound to India.

* From being animated, active, and in every respect improving rapidly, he now seemed, all at once, to fall back. His stomach became irritable, he was languid and dejected, and in fact thought himself worse than ever, save being free of pain. These feelings, like those from mercury, I knew were temporary, and was therefore not so anxious as I should have been, had they proceeded from disease.

† I believe it might be fairly termed *matter*, in the literal medical meaning of the word, for it had every appearance of *pus* mixed with impure bile and fæces. His cough (which of late was troublesome) now scarce ever annoyed him.



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PAGE 1 ACTION